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ABSTRACT

This monograph is a computer printout which presents findings from an analysis of data on cooperation among 29 regional groupings. Regional groupings are interpreted as geographic areas such as Africa and Latin America and international organizations such as The North Atlantic Treaty Organization (NATO) and the Organization of American States (OAS). Analysis was based on distance theory--which implies that international relations systems can be analyzed with regard to scores on specific variables, compared with scores of other systems with regard to the same variables, and plotted a given distance above or below other systems on the basis of those scores. Variables included economic, political, cultural, and commercial interaction. The objectives were to provide information on whether cooperation within international relations systems varies across regional groupings, and to determine what significance, if any, such variation might have. The method was to apply distance theory to various regional groupings and compare the results with a world model. Findings indicated that groups with high mean economic development have members who tend to export high cooperation to other nations that are close to them with respect to the power base variable. Conversely, group members with low mean development tend to export to other nations that are distant from their own power base. The implication is that international policies relating to cooperation may have to consider high levels of variation among nations according to factors including power base and level of economic development. (DB)

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ATTRIBUTES AND NATIONAL BEHAVIOR, PART 2: MODERN INTERNATIONAL RELATIONS MONOGRAPH SERIES.

DISTANCE THEORY, A COMPARISON OF VARIOUS REGIONAL GROUPINGS ON 1966-69 COOPERATION DATA

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TAPE SPECS ARE: 9 TRACK, 800 BPI, EBCDIC, 132 CHARACTER RECORDS, 2400 FEET.

NOTE! SINCE THE CODEBOOK WAS PUBLISHED, MONOGRAPHS 1-6, 10, 27 AND 39 HAVE BEEN FURTHER EDITED, REDUNDANCY REMOVED AND GATHERED TOGETHER UNDER THE TITLE OF: PROJECT THEORY: INTERPRETATIONS AND POLICY RELEVANCE. THIS COLECTION MAY BE FOUND IN FILE 8. SINCE IT IS UPDATED, IT IS RECOMENDED THAT THIS FILE BE USED INSTEAD OF THE ORIGINAL MATERIALS IN THE APPROPRIATE CASES. IN THE CASE OF THE OTHER FILES, THEY RETAIN THE ORIGINAL BUILT-IN REDUNDANCY.

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NOTE: ALL MONOGRAPHS ON TAPE ARE SET UP TO PRINT ON A UNIVAC DOCUMENT PROCESSOR. SPECIAL PROGRAMS TO ASSIST IN PRINTING ON A DECWRITER II FOR UPPER AND LOWER CASE, DOUBLE SPACE, LENGTH ADJUSTED FOR THE DECWRITER AND WITH FOOTNOTE CAPABILITY, ARE CONTAINED IN MONOGRAPH 26. TABLES OR FIGURES THAT GO BEYOND 80 COLUMNS MAY BE FOLDED IF THE DOCUMENT PROCESSOR IS USED. IF THIS IS UNDESIRABLE, THEY CAN BE PRINTED BY OTHER STANDARD PRINT COMMANDS, SUCH AS AN EDITOR PROGRAM, WHICH CAN PRINT, WITHOUT FOLDING, TO 132 COLUMNS. ALSO, DOCUMENT COMMANDS ARE INVISIBLE IN THE COPY ONLY IF THE DOCUMENT PROCESSOR IS USED. IF OTHER PRINT COMMANDS ARE USED, THE DOCUMENT COMMANDS WILL BE VISIBLE, I.E., WILL APPEAR AS >DOUBLE>, >SPACE>, ETC. AND ARE LEFT JUSTIFIED. IF THEY ARE NOT NEEDED, THEY CAN BE IGNORED OR EDITED OUT. ALL MONOGRAPHS ARE IN MIXED UPPER AND LOWER CASE, EXCEPT MONOGRAPHS 19 AND 26, WHICH ARE IN UPPER CASE ONLY.

Attributes and National Behavior:

Modern International Relations Monograph Series

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DISTANCE THEORY, A COMPARISON OF VARIOUS REGIONAL GROUPINGS OF 1966-69 COOPERATION DATAXX001

INTRODUCTION.

THE PURPOSE OF THIS ARTICLE IS TO REPORT ON THE TESTING OF DISTANCE THEORY ON WEIS COOPERATION DATA FOR THE YEARS 1966-69 CONSIDERING SELECTED REGIONAL GROUPINGS, SUCH AS AFRICA, LATIN AMERICA ETC. THAT IS, WE WISH TO KNOW WHETHER EMPIRICAL RESULTS VARY ACROSS SUCH GROUPINGS AND WHAT SIGNIFICANCE, IF ANY, THIS MAY HAVE.

THE WORK REPORTED HERE IS PART OF A LARGER PROJECT WHICH FOCUSES ON WEIS CONFLICT AND COOPERATION DATA FOR THE MID 1960'S USING THE FRAMEWORKS OF ATTRIBUTE, SOCIAL FIELD, STATUS-FIELD, RELATIVE STATUS-FIELD, DISTANCE AND DEVIANCE THEORIES, AS GUIDELINES FOR OPERATIONAL PROCEDURES. SINCE EACH OF THESE THEORIES ARE DEVELOPED ELSEWHERE, THEY WILL NOT BE TREATED FULLY HERE (RUMMEL, 1969,A,B, 1971, VINCENT, 1972, 1973,A,B, 1974, 1975, 1976). THEY CAN, HOWEVER, BE SUMMARIZED IN THE FOLLOWING WAY.

PUT CHART 1 HERE.

FROM THE ABOVE, THE BASIC CORRELATIONAL DESIGN OF EACH THEORY CAN EASILY BE DETERMINED. FOR EXAMPLE, IN USING ATTRIBUTE THEORY, AN INVESTIGATOR CORRELATES THE A-SPACE FACTOR SCORES OF NATIONS WITH THEIR TOTAL BEHAVIOR SCORES TO DETERMINE THE DEGREE OF

ASSOCIATION. IN SOCIAL FIELD THEORY, DYADIC A-SPACE DISTANCES ARE CORRELATED WITH MEASURES OF DYADIC BEHAVIOR AND SO FORTH.XX002

SPECIAL TERMS IN THE ABOVE CHART CAN BE DESCRIBED AS FOLLOWS. A-SPACE FACTOR SCORES ARE DERIVED FROM A FACTOR ANALYSISXX003 OF NATIONAL ATTRIBUTE VARIABLES. A-SPACE DISTANCES ARE COMPUTED BY THE FORMULA I-J=D WHERE I IS THE NATION OF CONCERN, J THE OTHER NATION AND D THE DISTANCE. PARTITIONED A-SPACE DISTANCES ARE GENERATED BY DIVIDING THE A-SPACE DISTANCE MATRIX INTO FOUR SEPARATE MATRICES, A TT MATRIX WHERE I IS TOPDOG IN ECONOMIC DEVELOPMENT AND POWER RELATIVE TO ALL OTHER J'S IN THE MATRIX, A TU MATRIX WHERE I IS TOPDOG IN ECONOMIC DEVELOPMENT AND UNDERDOG IN POWER RELATIVE TO ALL OTHER J'S IN THE MATRIX, A UT MATRIX WHERE I IS UNDERDOG IN ECONOMIC DEVELOPMENT AND TOPDOG IN POWER RELATIVE TO ALL OTHER J'S IN THE MATRIX, AND A UU MATRIX WHERE I IS UNDERDOG IN ECONOMIC DEVELOPMENT AND POWER RELATIVE TO ALL OTHER J'S IN THE MATRIX. D-SPACE FACTOR SCORES ARE DYADIC FACTOR SCORES GENERATED BY FACTOR ANALYZING DISTANCES COMPUTED ON NATION ATTRIBUTES BY THE FORMULA /I-J/=P WHERE I IS THE NATION OF CONCERN, J THE OTHER NATION, AND P THE ABSOLUTE DISTANCE BETWEEN THEM. MEANS OF D-SPACE FACTOR SCORES ARE COMPUTED BY AVERAGING THE DYADIC FACTOR SCORES OF A PARTICULAR DYADIC SET, SUCH AS THE U.S. SET. TOTAL BEHAVIOR REFERS TO THE SUM OF ALL BEHAVIOR (SUCH AS CONFICT BEHAVIOR) EXPORTED TO ALL THE OTHER ACTORS IN THE SYSTEM. DYADIC BEHAVIOR REFERS TO THE BEHAVIORAL EXPORTATIONS OF A DYADIC SET, SUCH AS THE U.S. SET, I.E., THE U.S. EXPORTS TO THE U.S.S.R., TO CHINA, TO FRANCE, ETC. PARTITIONED DYADIC BEHAVIOR

REFERS TO EXPORTS OF I TO J'S THAT ARE EITHER TT, UT, TU, OR UU, RELATIVE TO I, IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER.

IN GENERAL, THE PROJECT ATTEMPTS TO DETERMINE THE RELATIONSHIP OF NATIONAL ATTRIBUTES AND ATTRIBUTE DISTANCES TO NATIONAL BEHAVIOR.XX004

THE FOLLOWING LIST GIVES MANY OF THE MAIN PROJECT STEPS.

PUT LIST 1 HERE

LIST 2 GIVES SOME SELECTED ILLUSTRATIVE FINDINGS ON THE ABOVE STEPS.

PUT LIST 2 HERE

HOPEFULLY, THE PROJECT MAY EVENTUALLY SUGGEST CRUCIAL OR PIVOTAL VARIABLES THAT WILL ASSIST IN UNDERSTANDING CONFLICT AND COOPERATION FLOWS IN THE INTERNATIONAL RELATION SYSTEM. THE PURPOSE HERE IS TO REPORT ON MAJOR FINDINGS CONNECTED WITH DISTANCE THEORY, COOPERATION FOR PROJECT STEPS 29 AND 30. IN THIS CONNECTION, COOPERATION FLOWS MAY LACK THE >GLAMOUR> OF CONFLICT, AS A FOCUS OF ATTENTION AND YET MAY HAVE AS MANY IMPORTANT IMPLICATIONS AS THOSE CONNECTED WITH CONFLICT.

AN EASY WAY TO APPROACH DISTANCE THEORY IS TO THINK IN TERMS OF >EXPECTATIONS> WHEN EITHER + OR - SIGNS ARE OBSERVED, ON FACTOR DIMENSIONS IN EMPIRICAL APPLICATIONS. THESE MAY BE SUMMARIZED AS:

PUT FIGURE 1 ABOUT HERE.

THIS FIGURE WILL PROVE USEFUL IN INTERPRETING THE WEIGHTS GENERATED FROM VARIOUS CANONICAL CORRELATIONXX005 ANALYSES THAT FOLLOW.

BEFORE PRESENTING THE COOPERATION WORLD MODELXX006 FOR DISTANCE THEORY, IT SEEMS PROPER TO REPRESENT THE HIGHLIGHTS OF THE FACTOR ANALYSIS OF D-SPACE SO THAT THE WEIGHTS GENERATED FOR THE MODEL WILL HAVE CONCRETE MEANING.

CONSTRUCTING D-SPACE.

THE VARIABLES OF A-SPACE WERE TAKEN, FOR THE MOST PART, FROM THE CROSS-POLITY TIME SERIES (BANKS, 1971) AND THE WORLD HANDBOOK OF POLITICAL AND SOCIAL INDICATORS (TAYLOR AND HUDSON, 1971). THE EXACT VARIABLE LIST WILL BE GIVEN SHORTLY. VARIABLES WERE SELECTED ON THE FOLLOWING GROUNDS: FIRST, THEY HAD TO CLEARLY PERTAIN TO THE ATTRIBUTES OF STATES. ANY VARIABLE WITH A BEHAVIORAL CONNOTATION (SUITABLE FOR B-SPACE) WAS DROPPED. SECOND, THE INFORMATION (TOTAL COLLECTION USED) WAS REQUIRED TO BE 90% COMPLETE. WHERE INFORMATION WAS MISSING, OR AMBIGUOUS, REGRESSION ESTIMATES WERE USED. THE REGRESSION ESTIMATE ROUTINE EMPLOYED SEARCHES THE ENTIRE COLLECTION OF VARIABLES TO FIND THAT VARIABLE ON WHICH THE SUBJECT HAS INFORMATION MOST CLOSELY RELATED TO THE VARIABLE ON WHICH THE INFORMATION IS MISSING. SIMPLE REGRESSION IS THEN USED TO ESTIMATE THE MISSING VALUE. SINCE MANY

VARIABLES HAD SKEWED DISTRIBUTIONS, A RANK TRANSFORMATIONXX007 WAS ALSO EMPLOYED.

IN CREATING D-SPACE, ORIGINAL VARIABLES ARE CONVERTED INTO ABSOLUTE DISTANCE SCORES. THE RESULTING MATRIX CAN BE CONCEIVED OF AS CONSISTING OF A SERIES OF DYADIC SUB-MATRICES, SUCH AS THE U.S. DYADIC SUB-MATRIX, THE U.S.S.R. DYADIC SUB-MATRIX, ETC. IN EACH SUB-MATRIX, THE ABSOLUTE DISTANCES OF A PARTICULAR I (SUCH AS THE U.S.) TO ALL OTHER J'S (SUCH AS THE U.S.S.R.) ARE GROUPED WITH DYADIC SUBJECTS REPRESENTED BY ROWS AND VARIABLES REPRESENTED BY COLUMNS. FOR EXAMPLE, THE U.S. DYADIC SUB-SET CONTAINS ALL THE DISTANCES OF THE U.S. TO ALL OTHER STATES TREATED FOR ALL OF THE VARIABLES CONSIDERED. IN THE ENTIRE SET, THERE WILL BE AS MANY SUB-SETS AS THERE WERE NATIONS INCLUDED IN THE ANALYSIS. WHEN THE ENTIRE MATRIX (ALL SUB-SETS TOGETHER) IS FACTORED, 1.0 EIGENVALUEXX008 CUT-OFF, THE RESULTING FACTOR SCORES REPRESENT THE LOCATION OF EACH DYAD (SUCH AS THE U.S.-JAPAN) ON THE DIMENSIONS OF THE DISTANCE SPACE. THUS, THE MANY VARIABLES OF D-SPACE (THOSE SAMPLED) ARE TRANSFORMED INTO THE DIMENSIONS OF D-SPACE, THROUGH FACTOR ANALYSIS, AND THE RESULTING FACTOR SCORES LOCATE EACH DYAD IN THAT SPACE.

D-SPACE ROTATED LOADINGS ARE PRESENTED IN THE FOLLOWING TABLE. TO SIMPLIFY FACTOR INTERPRETATION, LOADINGS .49 OR GREATER ARE GROUPED AND SORTED IN TERMS OF MAGNITUDE FOR EACH FACTOR. FOR EXAMPLE, IN THE CASE OF THE FIRST FACTOR, POWER BASE DISTANCE, TOTAL GROSS NATIONAL PRODUCT IN MILLIONS OF U.S. DOLLARS LOADS .91, TOTAL EDUCATIONAL EXPENDITURES IN MILLIONS OF U.S. DOLLARS

LOADS .88 AND SO FORTH. NAMES, SUCH AS POWER BASED DISTANCE, ARE, OF COURSE, ARBITRARILY ASSIGNED. IT IS BEST TO THINK OF FACTORS IN TERMS OF THE VARIANCE THAT THEY ACCOUNT FOR IN THE VARIABLES. THIS IS EASILY ASSERTAINED BY SQUARING THE LOADING. FOR EXAMPLE, THE FACTOR, POWER BASE DISTANCE, ACCOUNTS FOR .91, SQUARED, OR 83% OF THE VARIANCE OF THE VARIABLE TOTAL GROSS NATIONAL PRODUCT IN MILLIONS OF U.S. DOLLARS. THUS, A DYAD STANDING HIGH ON THIS FACTOR, THAT IS, ONE HAVING A HIGH FACTOR SCORE, HAS DYADIC PARTNERS THAT TEND TO BE DISTANT FROM ONE ANOTHER ON THE GROUPED VARIABLES.

A CONSIDERABLE SIMPLIFICATION, THEREFORE, HAS BEEN ACHIEVED THROUGH THE FACTOR ANALYSIS. THE ORGINAL 144 DISTANCE VARIABLES HAVE BEEN REDUCED TO THE 33 DISTANCE DIMENSIONS AND DYADIC SUBJECT LOCATION ON THESE DIMENSIONS CONVIENTLY SUMMERIZES A GREAT DEAL OF INFORMATION ABOUT DYADIC PARTNERS.

PUT TABLE 1 ABOUT HERE.

CONSIDERING THE FIRST DIMENSION, KNOWING THAT ABSOLUTE DISTANCES WERE COMPUTED ON THESE VARIABLES AND THAT ALL THE VARIABLES POSITIVELY CORRELATE WITH THE FACTOR, WE CAN MAKE THE FOLLOWING INTERPRETATION. DYADS THAT ARE CLOSE (SMALL (I-J) IN RESPECT TO THEIR POWER BASE DISTANCE ARE GROUPED AT THE BOTTOM OF THE DIMENSION AND DYADS THAT ARE DISSIMILAR IN RESPECT TO THEIR POWER BASE DISTANCE ARE GROUPED AT THE TOP OF THE DIMENSION. THE

VARIABLE LIST INDICATES WHAT THE PRIMARY DISCRIMINATORS ARE, IN RESPECT TO THESE FACTOR SCORE ASSIGNMENTS. DISTANCES, IN RESPECT TO POWER BASE, THEN, ARE HIGHLY PATTERNED. IF WE KNOW A DYAD'S FACTOR SCORE ON THIS DIMENSION, WE CAN PREDICT, WITH VARYING DEGREES OF CONFIDENCE, DISTANCE IN RESPECT TO 29 DIFFERENT VARIABLES. TO PUT IT ANOTHER WAY, IF A DYAD HAS A HIGH FACTOR SCORE ON THIS DIMENSION, IT TENDS TO BE DISTANT IN RESPECT TO TOTAL GROSS NATIONAL PRODUCT, TOTAL EDUCATIONAL EXPENDITURES, TOTAL ENERGY CONSUMPTION, ETC. CONVERSELY, IF A DYAD HAS A SMALL FACTOR SCORE ON THIS DIMENSION, THE PARTNERS TEND TO BE CLOSE IN RESPECT TO TOTAL GROSS NATIONAL PRODUCT, TOTAL EDUCATIONAL EXPENDITURES, TOTAL ENERGY CONSUMPTION, ETC. KNOWLEDGE OF A DYAD'S FACTOR SCORE, THEN, IMMEDIATELY GIVES US INFORMATION ON LIKELY LOCATION ON A HOST OF VARIABLES.

CONSIDERING THE SECOND DIMENSION, IT CAN BE SEEN THAT ALMOST ALL OF THESE VARIABLES ARE PER CAPITAL ECONOMIC IN NATURE. AGAIN, THE INTERPRETATION IS RELATIVELY SIMPLE, SINCE THERE ARE NO NEGATIVE LOADINGS. ALL DYADS WITH LARGE FACTOR SCORES TEND TO BE DISTANT IN RESPECT TO THESE VARIABLES WHILE DYADS WITH SMALL FACTOR SCORES TEND TO BE SIMILAR.

CONSIDERING THE THIRD DIMENSION, SINCE THESE ARE POLITICAL VARIABLES AND THE LOADINGS ARE POSITIVE, DYADS WITH LARGE FACTOR SCORES TEND TO BE DISSIMILAR IN RESPECT TO THESE VARIABLES, AND THOSE WITH SMALL FACTOR SCORES, SIMILAR.

IT SHOULD BE APPARENT BY NOW THAT TO GO THROUGH ALL 33 DIMENSIONS IN THIS FASHION IS UNNECESSARY.

PROBABLY ALL THAT NEEDS TO BE CLARIFIED NOW IS HOW TO MAKE AN INTERPRETATION WHEN NEGATIVE LOADINGS OCCUR, SUCH AS IN THE CASE OF THE SIXTH DIMENSION. THE REASON THE TERM, CLOSENESS, INSTEAD OF DISTANCE IS USED IS BECAUSE OF THE NEGATIVE SIGNS GIVEN TO THE HEAVIEST LOADING VARIABLES. SINCE THESE LOADINGS ARE CORRELATIONS OF THE DISTANCE VARIABLES WITH THE FACTOR SCORES, IT SHOULD BE APPARENT THAT THOSE WITH LARGE FACTOR SCORES WILL TEND TO BE CLOSE (NOT HAVE LARGE DISTANCES) ON THE VARIABLES THAT ARE GROUPED, WHILE THOSE WITH SMALL FACTOR SCORES WILL TEND TO BE DISTANT ON THESE VARIABLES. THUS, WE MAY GENERALIZE, WHEN LOADINGS ARE POSITIVE WE KNOW THAT LARGE FACTOR SCORES INDICATE DISTANCE ON THE GROUPED VARIABLES, WHILE, IF THE LOADINGS ARE NEGATIVE, SUCH SCORES INDICATE CLOSENESS. WHEN LOADINGS ARE POSITIVE, SMALL FACTOR SCORES INDICATE CLOSENESS BUT WHEN LOADINGS ARE NEGATIVE, SMALL FACTOR SCORES INDICATE DISTANCE. WITH THIS SIMPLE RULE THE IMPLICATIONS OF THE FACTOR SCORES AND LOADINGS SHOULD BE CLEAR.

THE NEXT STEP WAS TO SELECT THE BEHAVIORAL VARIABLES.

WEIS DATA MANUPULATIONS.

IN THE WEIS COLLECTION A NUMBER OF VARIABLES ARE DEVELOPED FOR VIRTUALLY ALL NATIONS, WHICH ARE SCORED AS EITHER DOING OR NOT DOING SOME COOPERATIVE OR CONFLICTUAL ACT. NUMEROUS MEASURES OF CONFLICT AND COOPERATION ARE SCORED FOR MANY STATES OVER A

CONSIDERABLE TIME PERIOD. ONE PROBLEM IN BUILDING GENERALIZATIONS FROM THIS COLLECTION, HOWEVER, IS THE PROBLEM OF SPECIFICITY WHEN ONE FOCUSES UPON ANY PARTICULAR MEASURE. THE MAJORITY OF STATES TEND TO HAVE 0 SCORES REGARDLESS OF WHAT CATEGORY IS PICKED IN THE COLLECTION. SUCH SCORES, IF USED IN CORRELATIONAL ANALYSES, THEN, ARE HIGHLY NON-NORMAL AND MOST ENTRIES ARE 0. IN APPARENT RECOGNITION OF THIS PROBLEM, THE WEIS SCHOLARS HAVE ATTEMPTED TO DEVELOP SOMEWHAT MORE GENERAL CATEGORIES BY GROUPING HIGHLY SIMILAR ACTS. EIGHT CLASSIFICATIONS OF COOPERATION ARE PRESENTED BELOW.

PUT TABLE 2 ABOUT HERE.

BECAUSE, COOPERATION EXPORTATIONS ARE STILL RELATIVELY INFREQUENT EVENTS, A THREE-YEAR PERIOD WAS EMPLOYED TO FURTHER REDUCE THE NUMBER OF SUCH ENTRIES. TO CREATE A STILL FURTHER REDUCTION, THE COOPERATION VARIABLES) WERE REDUCED TO A SINGLE VECTOR, USING ADDITIVE WEIGHTS. THAT IS, TO APPLY CORRELATION TECHNIQUES TO THE ORIGINAL VARIABLES, BECAUSE OF THE EXTREMELY SKEWED CHARACTER OF THE DISTRIBUTIONS, COULD GREATLY UNDERCUT THE VALIDITY OF THE ANALYSIS. IN ORDER TO COMBINE THE VARIABLES INTO A SINGLE INDEX, 30 JUDGES, STUDENTS AND PROFESSORS WERE EMPLOYED TO RATE EACH OF THE VARIABLES IN TERMS OF INTENSITY ON A 5-POINT SCALE. THE INTENSITY SCORES, AS MEASURED BY THE JUDGE MEAN RESPONSESXX009 (GIVEN IN TABLE 2) WERE THEN USED AS WEIGHTS TO SUM

THE VARIABLES.

OBVIOUSLY, IT IS NOT POSSIBLE TO LIST ALL 16,000+ DYADIC COOPERATION SCORES. BUT, A FEELING OF THE DATA MAY BE OBTAINED BY LISTING A SUMMARY INDEX OF THE TOTAL COOPERATION FOR EACH STATE (OBTAINED BY SUMMING EACH STATE'S DYADIC COOPERATION SCORES WITHIN A DYADIC SET, SUCH AS THE U.S. SET. IT SHOULD BE CLEAR, HOWEVER, THAT THE DYADIC SCORES NOT THE TOTAL SCORES IN TABLE 3 WERE USED IN THE CORRELATIONAL APPLICATIONS BELOW.

PUT TABLE 3 ABOUT HERE.

WHEN THESE STEPS WERE COMPLETED, DISTANCE THEORY WAS APPLIED (THE DYADIC COOPERATION VECTOR IS REGRESSED ON THE 33 DYADIC DISTANCES), GENERATING 128 SETS OF PARAMETER WEIGHTS (ONE FOR EACH STATE).XX010 THE WORLD COOPERATION MODEL WAS OBTAINED BY SUMMING THE INDIVIDUAL NATION RESULTS (SQUARING THE WEIGHT BUT RETAINING THE SIGNS) AND THE MODEL IS PRESENTED IN THE FOLLOWING TABLE.

PUT TABLE 4 ABOUT HERE.

WE MAY NOW INTERPRET SUCH WEIGHTS ACCORDING TO FIGURE 1.

PUT LIST 3 ABOUT HERE.

FOR EXAMPLE, I'S TEND TO EXPORT COOPERATION IN THE WORLD SYSTEM

TO J'S DISTANT FROM THEM ON POWER BASE AND ECONOMIC DEVELOPMENT BUT CLOSE TO THEM ON MILITARISM WHEN ALL STATE MODELS ARE CONSIDERED TO GENERATE THE WORLD MODEL.

THE MAJOR PURPOSE OF THIS PAPER IS TO COMPARE THE ABOVE MODEL WITH RESULTS GENERATED BY ANALYZING A NUMBER OF INTERNATIONAL GROUPINGS, USING THE SAME MODEL BUILDING TECHNIQUES, FOCUSING ON SELECTED DIMENSIONS.

THE GROUPS CHOSEN AND THEIR MEMBERS WERE:

PUT TABLE 5 ABOUT HERE.

THE MODEL GENERATING TECHNIQUES WERE APPLIED TO EACH GROUP (I.E., THE MEMBERS' PARAMETER WEIGHTS ARE USED TO CALCULATE THE GROUP MODEL) AND THE FOLLOWING TABLE PRESENTS A RANK SORT LISTING OF THE RESULTS ON SELECTED FACTORS.

PUT TABLE 6 ABOUT HERE.

CONSIDERING POWER BASE DISTANCE FIRST, IT IS APPARENT THAT THERE ARE STRONG REGIONAL DIFFERENCES. AS NOTED ABOVE, FOR THE WORLD AS A WHOLE, DISTANCE IN RESPECT TO POWER BASE (A + SIGN) PREDICTS HIGH COOPERATION EXPORTATIONS. THAT IS, STATES, WHEN ALL STATES ARE CONSIDERED, TEND TO EXPORT THE MOST COOPERATION TO THOSE STATES DISTANT FROM THEM IN RESPECT TO POWER BASE. THIS WORLD MODEL HOLDS FOR GROUPINGS SUCH AS THIRD WORLD, AFRICA, COMMONWEALTH, LATIN AMERICA, ASIA AND ARAB LEAGUE. THE SIGN MODEL

REVERSES, HOWEVER, AS GROUPINGS TEND TO BE EUROPEAN OR HAVE EUROPEAN MEMBERS. THUS, MEMBERS OF GROUPINGS SUCH AS CENTO, EASTERN EUROPE, COMECON, WARSAW PACT, SEATO, COUNCIL OF EUROPE AND NATO TEND TO EXPORT THE MOST COOPERATION TO STATES CLOSE TO THEM IN RESPECT TO POWER BASE.

VIRTUALLY AN IDENTICAL PATTERN HOLDS FOR ECONOMIC DEVELOPMENT DISTANCE. THE AFRICAN, LATIN AMERICAN AND ASIAN GROUPS TEND TO FOLLOW THE WORLD PATTERN (EXPORT TO THOSE DISTANT) WHILE THE EUROPEAN GROUPS AND GROUPS WITH SOME OR MANY EUROPEAN MEMBERS TEND TO EXPORT THE MOST COOPERATION TO THOSE CLOSE TO THEM IN RESPECT TO ECONOMIC DEVELOPMENT.

CONSIDERING POLITICAL DISTANCE, HOWEVER, A NEW OUTCOME IS APPARENT. EASTERN EUROPEAN GROUPINGS, SUCH AS COMECON, NOW CONFORM TO THE WORLD MODEL (THOSE DISTANT RECEIVE THE MOST COOPERATION) WHILE THE REMAINING EUROPEAN BASED GROUPS OR THOSE HAVING EUROPEAN MEMBERS TEND TO HAVE NEGATIVE WEIGHTS, THAT IS, TEND TO EXPORT THE MOST COOPERATION TO THOSE CLOSEST.

MILITARISM PRESENTS A STILL DIFFERENT PATTERN. LATIN AMERICAN AND AFRICAN GROUPS, SUCH AS OAS AND OAU DEVIATE MOST FROM THE WORLD MODEL (A - SIGN). THE CONFORMERS IN THIS CASE (THAT IS, EXPORT MOST TO THOSE CLOSEST IN RESPECT TO MILITARISM) ARE, FOR THE MOST PART, EUROPE AND EUROPEAN RELATED GROUPS, SUCH AS WARSAW PACT AND NATO.

ONE WAY TO MAKE SUCH PATTERNS MORE EXPLICIT ACROSS ALL THE D-SPACE FACTORS IS TO WORK WITHIN THE FRAMEWORK OF ATTRIBUTE THEORY. THAT IS, IF A-SPACE IS CONSTRUCTED, AND THE GROUPS' MEAN

FACTOR SCORES ARE COMPUTED ON THE A-SPACE DIMENSIONS, THESE MEAN FACTOR SCORES CAN BE USED TO MORE PRECISELY DEFINE THE RELATIONSHIP BETWEEN GROUP ATTRIBUTES AND THE GROUP MODEL SCORES.

THE CONSTRUCTION OF A-SPACE.

THE FOLLOWING PRESENTS AN ANALYSIS OF THE ROTATED LOADINGS OF A-SPACE. A-SPACE WAS GENERATED BY FACTOR ANALYZING THE 144 ATTRIBUTE VARIABLES, WHICH RESULTED IN 22 FACTORS. EACH FACTOR IS NAMED AND VARIABLE LOADINGS .49 OR LARGER ON EACH FACTOR ARE GROUPED AND PRESENTED IN ORDER OF DECENDING MAGNITUDE. FOR EXAMPLE, NATIONAL GOVERNMENT REVENUE PER CAPITA IS THE LARGEST POSITIVE LOADING ON THE FACTOR OF ECONOMIC DEVELOPMENT. THIS MEANS THAT .92 SQUARED (OR 85 PERCENT) OF THE VARIANCE OF NATIONAL GOVERNMENT REVENUE PER CAPITA IS ACCOUNTED FOR BY THE FACTOR OF ECONOMIC DEVELOPMENT. A NATION WITH A HIGH FACTOR SCORE ON THIS FACTOR, THEN, WOULD TEND TO HAVE HIGH SCORES ON ALL OF THE POSITIVELY LOADING VARIABLES AND LOW SCORES ON THE NEGATIVELY LOADING VARIABLES. A SIMILAR INTERPRETATION PERTAINS FOR THE REMAINING FACTORS. FOR EXAMPLE, STATES SCORING HIGH ON POWER BASE TEND TO HAVE HIGH SCORES IN RESPECT TO TOTAL PRIMARY SCHOOL ENROLLMENT, TOTAL SCHOOL ENROLLMENT, TOTAL POPULATION ETC. IN THE CASE OF A FACTOR, SUCH AS FACTOR 4, NON-COMPETITIVE POLITICAL SYSTEM, WHICH HAS ALL NEGATIVE LOADINGS, INTERPRETATION SHOULD BE EQUALLY AS CLEAR. IN SUCH A CASE, A STATE WITH A HIGH FACTOR SCORE TENDS TO HAVE LOW SCORES IN RESPECT TO AGGREGATE COMPETITION

INDEX, PARTY LEGITIMACY, COMPETITIVENESS OF NOMINATING PROCESS, LEGISLATIVE EFFECTIVENESS, ETC.

PUT TABLE 7 ABOUT HERE.

GROUP MEANS (THE MEMBERS FACTOR SCORES WERE AVERAGED) WERE THEN COMPUTED ON THE A-SPACE DIMENSIONS AND THE RESULTING MEAN SCORES CORRELATED WITH THE GROUP MODEL SCORES.XX011 THE FOLLOWING IS THE CORRELATION MATRIX.

PUT TABLE 8 ABOUT HERE.

FOR SPACE REASONS, ATTENTION WILL BE LIMITED TO THE A-SPACE FACTORS OF ECONOMIC DEVELOPMENT, POWER BASE AND NON-COMPETITIVE POLITICAL SYSTEM. A-SPACE FACTORS REPRESENT THE COLUMMS OF THE MATRIX WHILE THE MODEL SIGNS ARE REPRESENTED BY THE ROWS. THUS, CONSIDERING THE FIRST ROW AND COLUMM, WE CAN SEE THAT ECONOMIC DEVELOPMENT (THE FIRST A-SPACE FACTOR) CORRELATED -.78 WITH THE GROUP MODEL SCORES ON POWER BASE DISTANCE. WE MAY INTERPRET THIS TO MEAN THAT THE HIGHER THE AVERAGE ECONOMIC DEVELOPMENT OF THE GROUPS THE MORE LIKELY THE GROUP MEMBERS WILL HAVE A NEGATIVE MODEL SIGN. THIS IS EASILY CONFIRMED BY INSPECTION OF TABLE 6. GROUPS SUCH AS OAU AND OAS HAVE POSITIVE SIGNS (EXPORT TO THOSE DISTANT) WHILE GROUPS SUCH AS NATO AND AND THE WARSAW PACT HAVE POSITIVE SIGNS (EXPORT TO THOSE CLOSE). THE FOLLOWING LIST

INTERPRETS THE THREE A-SPACE FACTORS CHOSEN FOR CORRELATIONS .50 OR HIGHER.

PUT LIST 4 ABOUT HERE.

THUS, GROUPS WHOSE MEMBERS HAVE HIGH MEAN ECONOMIC DEVELOPMENT HAVE MEMBERS WHO TEND TO EXPORT THE HIGHEST LEVELS OF COOPERATION TO J'S THAT ARE CLOSE TO THEM ON POWER BASE, ECONOMIC DEVELOPMENT, POLITICAL SYSTEM, ENERGY PRODUCTION, INFANT MORTALITY AND CONSENTRATION OF EXPORT RECEIVERS BUT DISTANT IN RESPECT TO FIXED PRICES GNP GROWTH RATE, PER CENT URBAN POPULATION AND CRUDE DEATH RATE. THUS, IF A GROUP POSESSES HIGH DEVELOPMENT ITS MEMBERS TEND TO EXPORT COOPERATION TO STATES THAT ARE CLOSE ON A MAJORITY OF THE FACTORS INVOLVED. OF PARTICULAR INTEREST, FOR SUCH HIGH MEAN SCORE GROUPS, IS THE FACT THAT ON THE LARGEST D-SPACE FACTORS, SUCH AS POWER BASE, ECONOMIC DEVELOPMENT AND POLITICAL SYSTEM, A PURELY >IF CLOSE, THEN EXPORT COOPERATION> PATTERN IS EVIDENT.

CONSIDERING A-SPACE POWER BASE, GROUPS THAT HAVE MEMBERS WITH HIGH MEAN POWER ARE GROUPS THAT TEND TO HAVE MEMBERS WHICH EXPORT COOPERATION TO THOSE CLOSE TO THEM IN RESPECT TO POWER BASE, ECONOMIC DEVELOPMENT, ENERGY PRODUCTION, POPULATION SIZE, INFANT MORTALITY, AGE OF CURRENCY AND REGULAR EXECUTIVE TRANSFERS BUT DISTANT FROM THEM IN REPECT TO PER CENT URBAN POPULATION. AGAIN, FOR HIGH MEAN GROUPS, ON THE KEY D-SPACE DIMENSIONS, OF POWER BASE DISTACE AND ECONOMIC DEVELOPMENT DISTANCE, WE FIND >IF CLOSE, THEN

EXPORT COOPERATION>.

IT CAN BE SEEN THAT CLOSENESS SPLITS WITH DISTANCE, AS A PREDICTOR OF COOPERATION, FOR GROUPS HAVING MEMBERS THAT TEND TO HAVE NON-COMPETITIVE POLITICAL SYSTEMS.

OVER THE WHOLE LIST, HOWEVER, CLOSENESS PREDICTS CONFLICT MORE OFTEN THAN DISTANCE, BY A MARGIN OF THREE TO ONE, FOR GROUPS WITH HIGH MEAN ECONOMIC DEVELOPMENT AND POWER. FOR GROUPS WITH LOW MEAN ECONOMIC DEVELOPMENT AND POWER, THE OPPOSITE PATTERN, OF COURSE, IS TRUE (DISTANCE DOMINATES OVER CLOSENESS AS A PREDICTOR OF COOPERATION). OVERALL, ECONOMICALLY DEVELOPED AND POWERFUL GROUPS TEND TO COOPERATE IN TERMS OF CLOSENESS, FOR MANY OF THEIR ATTRIBUTES WHILE UNDERDEVELOPED AND WEAK GROUPS TEND TO COOPERATE IN TERMS OF DISTANCE, ON SUCH ATTRIBUTES.

SIMILAR KINDS OF ANALYSES, OF COURSE, CAN BE MADE FOR THE REMAINING A-SPACE FACTORS AND MODEL SIGNS.

CLEARLY THERE ARE DISCERNABLE DIFFERENCES BETWEEN GROUPS RELATED TO ATTRIBUTES THAT HELP ILLUMINATE THE TOTAL WORLD PICTURE. THESE FINDINGS MAY HAVE IMPORTANT IMPLICATIONS FOR POSSIBLE COOPERATION PREDICTION AND/OR CONTROL. THE STUDY IMPLIES THAT THE POSSIBLE EFFECTS OF POLICY ON ONE KIND REGIONAL GROUPING MAY NOT BE THE SAME AS ON ANOTHER. FOR EXAMPLE, CONSIDERING ONE OF OUR PRIMARY FACTORS, POWER BASE, GROUPS SUCH AS NATO AND THE WARSAW PACT MAY TEND TO ACT ONE WAY, IN TERMS OF POWER DISTANCES, WHILE GROUPS SUCH AS OAU AND OAS MAY ACT IN THE OPPOSITE DIRECTION. THE CONCEPT OF REGION AND THE POSSIBILITY OF REGIONAL POLICIES IS CLEARLY STRENTHENED BY THESE FINDINGS.

SUMMARY

THE PURPOSE OF THIS EFFORT WAS TO APPLY DISTANCE THEORY TO SEVERAL REGIONAL GROUPINGS IN THE WORLD AND COMPARE THE RESULTS WITH THE WORLD MODEL. TO DO THIS A-SPACE AND D-SPACE WERE CONSTRUCTED AND THE MODEL RESULTS FOR THE GROUPS DETERMINED. ON FACTORS , SUCH AS POWER BASE, REGIONAL DIFFERENCES WERE CLEARLY APPARENT. CLARIFICATION OF SUCH DIFFERENCES WAS FACILITATED BY RELATING A-SPACE FACTOR SCORES TO THE MODELS. A PORTION OF THE MATRIX WAS INTERPRETED IN THIS REGARD. FOR EXAMPLE, IT WAS FOUND THAT GROUPS WITH HIGH MEAN ECONOMIC DEVELOPMENT HAVE MEMBERS WHO TEND TO EXPORT HIGH COOPERATION TO J'S other nations THAT ARE CLOSE TO THEM IN RESPECT TO POWER BASE. GROUP MEMBERS WITH LOW MEAN DEVELOPMENT, HOWEVER, TEND TO EXPORT TO J'S THAT ARE DISTANT FROM THEIR OWN POWER BASE. POLICIES RELATING TO COOPERATION MAY HAVE TO TAKE IN TO ACCOUNT THE POTENTIAL REVERSAL OF EXPORTATION PATTERNS, DEPENDING ON THE REGION CONSIDERED.

NOTES

(1). THE ASSISTANCE OF JIM SLITOR, WES KRANITZ AND CAROL JONES WAS GREATLY APPRECIATED.

(2). DISTANCE HAS BEEN MEASURED IN TWO WAYS IN THE THEORIES.

ABSOLUTE DISTANCE IS A MEASURE OF THE DISTANCE BETWEEN TWO NATIONS ON A VARIABLE BASED ON THE FORMULA: D = /I-J/. FOR EXAMPLE, IF NATION I = +5 AND NATION J = +2, THE DISTANCE BETWEEN THEM IS +3. HOWEVER, IF I = +2 AND J = +5, THE DISTANCE BETWEEN THEM REMAINS +3. THIS MEASURE, THEN, MEASURES DISTANCE, REGARDLESS OF DIRECTION, AND ALL DISTANCE WILL HAVE A POSITIVE SIGN. THIS METRIC FINDS ITS USE IN DISTANCE THEORY.

ALGEBRAIC DISTANCE IS A MEASURE OF THE DISTANCE BETWEEN TWO NATIONS ON A VARIABLE, BASED ON THE FORMULA: D = I-J. FOR EXAMPLE, IF NATION I = +5 AND NATION J = +2, THE DISTANCE BETWEEN THEM IS +3. BUT, IF I = +2 AND J = +5, THE DISTANCE IS -3. THIS METRIC, THEN, MEASURES WHETHER I IS ABOVE OR BELOW J. IF I IS ABOVE J, THE DISTANCE VALUE WILL HAVE A + SIGN. IF I IS BELOW J, THE DISTANCE WILL HAVE A - SIGN. THIS MEASURE OF DISTANCE IS USED IN SOCIAL FIELD AND STATUS-FIELD THEORIES.

(3). FACTOR ANALYSIS REFERS TO CERTAIN MATHEMATICAL TECHNIQUES, THE PURPOSE OF WHICH IS TO REDUCE A LARGE NUMBER OF INDICES (VARIABLES) INTO A SMALLER NUMBER OF FACTORS. FACTORS MAY BE VIEWED AS INTERVENING VARIABLES WHICH EMERGE FROM THE PATTERN OF

INTERCORRELATION AMONG INDICES. VARIOUS TECHNIQUES OF FACTOR EXTRACTION HAVE BEEN EMPLOYED. IN THE PRINCIPAL AXIS METHOD, OPERATIONS ARE PERFORMED UPON A MATRIX CONSISTING OF THE INTERCORRELATIONS OF THE INDICES WITH ONE ANOTHER. THE FIRST >FACTOR> (OR >COMPONENT>) IS THAT WHICH ACCOUNTS FOR THE GREATEST PROPORTION OF THE INTERCORRELATIONS. SUCCESSIVE OPERATIONS UPON SUCCESSIVE, RESIDUAL MATRICES GENERATE THE SECOND FACTOR, THE THIRD FACTOR, ETC. EACH FACTOR IS MATHEMATICALLY DEFINED SO THAT IT IS ORTHOGONAL TO THE OTHER FACTORS. EACH INDICES >LOADS> DIFFERENTLY UPON EACH OTHER. THESE LOADINGS OR WEIGHTS MAY BE VIEWED AS CORRELATIONS OF THE INDICES WITH THE FACTORS AND MAY BE UTILIZED TO GENERATE >FACTOR SCORES> WHICH EXPRESS EACH SUBJECT'S POSITION ON EACH FACTOR. FACTORS ARE SOMETIMES ROTATED TO MAXIMIZE THE LOADINGS FOR CERTAIN INDICATORS AND MINIMIZE THE LOADINGS FOR OTHERS. ROTATED FACTOR LOADINGS PRESENT THE SIMPLEST POSSIBLE PICTURE OF THE CONTRIBUTIONS OF THE INDICES TO THE FACTORS. ONCE FACTOR SCORES HAVE BEEN CALCULATED, IT IS POSSIBLE TO CORRELATE THEM WITH OTHER INDICES TO FACILITATE PREDICTION AND DESCRIPTION. FACTOR ANALYSIS HAS PROVEN TO BE A POWERFUL TOOL OF ANALYSIS IN SEVERAL INTERNATIONAL RELATIONS STUDIES.

(4). SEE THE VARIOUS DON RESEARCH REPORTS FOR BACKGROUND IN RESPECT TO DEVELOPMENT OF ATTRIBUTE, SOCIAL FIELD, AND STATUS-FIELD THEORIES.

(5). A CANONICAL CORRELATION ANALYSIS ASSIGNS WEIGHTS TO TWO SETS OF VARIABLES SO THAT THE SCORES GENERATED FROM THE TWO SETS ARE MAXIMALLY CORRELATED. THE CANONICAL VARIATE SCORES

THEMSELVES, FOR ONE SET, CAN BE COMPUTATED BY THE FORMULA C = Sw, WHERE C IS AN N X 1 VECTOR OF CANONICAL VARIATE SCORES, S IS AN N X M MATRIX OF SUBJECTS' STANDARD SCORES ON THE ORIGINAL VARIABLES, AND W IS A M X 1 VECTOR OF CANONICAL WEIGHTS, WHERE N = SUBJECT AND M = VARIABLES.

THIS FORMULA IS GIVEN HERE TO MAKE CLEAR THE MEANING OF CANONICAL VARIATE SCORES. THE ACTUAL CALCULATION OF THE WEIGHTS, OF COURSE, IS THE SOLUTION TO THE BASIC CANONICAL PROBLEM, WHICH IS TO MAXIMALLY CORRELATE TWO SUCH SETS OF SCORES, ONE GENERATED FROM ONE SET OF VARIABLES AND THE OTHER GENERATED FROM THE OTHER SET OF VARIABLES. WHEN WEIGHTS ARE CALCULATED WHERE THIS IS THE CASE, THE CANONICAL VARIATE SCORES PREDICT THE ORIGINAL VARIABLES TO THE EXTENT OF THEIR LOADINGS, IF THE ORIGINAL VARIABLES ARE MUTUALLY ORTHOGONAL IN EACH SET. LIKE FACTOR SCORES, A GREAT DEAL OF INFORMATION CAN BE SUMMARIZED BY PROPERLY COMPUTED CANONICAL VARIATE SCORES.

IF CORRELATED DATA ARE USED, THEN THE INDIVIDUAL IMPORTANCE OF THE PREDICTORS IS NOT CLEAR BY EXAMINATION OF CANONICAL WEIGHTS, FOR THE SAME REASONS AS IN THE APPLICATION OF MULTIPLE REGRESSION. THAT IS, THE WEIGHTS ARE ASSIGNED SO THAT ONLY UNIQUE VARIANCE IS CONSIDERED. IF THE VARIABLES ARE UNCORRELATED, HOWEVER, WEIGHTS WILL BE EQUAL TO THE CORRELATION OF THE VARIABLES WITH THE CANONICAL VARIATE SCORES.

ALTHOUGH ONLY ONE SET OF WEIGHTS IS LIKELY TO PRODUCE EXACTLY THE SAME MAXIMAL CORRELATION, NEVERTHELESS, DIFFERENT WEIGHTING SCHEMES MAY PRODUCE MORE THAN ONE STATISTICALLY SIGNIFICANT

CANONICAL CORRELATION. WHEN ADDITIONAL CORRELATIONS ARE PRODUCED THROUGH DIFFERENT WEIGHTING SCHEMES, THEY ARE SUBJECTED TO THE RESTRICTION THAT THE SUBJECTS' CANONICAL VARIATE SCORES MUST BE ORTHOGONAL TO ALL PREVIOUSLY CALCULATED CANONICAL VARIATE SCORES. THUS, IF TWO SIGNIFICANT CANONICAL CORRELATIONS ARE PRODUCED, THE CANONICAL VARIATE SCORES IN THE SECOND CANONICAL CORRELATION WILL HAVE A ZERO CORRELATION WITH THE CANONICAL VARIATE SCORES OF THE FIRST CANONICAL CORRELATION. IF STATISTICAL SIGNIFICANCE IS IGNORED, THERE CAN BE AS MANY CANONICAL CORRELATIONS AS THERE ARE VARIABLES IN THE SMALLEST SET, AND THUS, AS MANY SETS OF CANONICAL VARIATE SCORES AS THERE ARE VARIABLES IN THE SMALLEST SET.

(6). SUMMING THE SQUARES OF THE PARAMETER WEIGHTS, BUT RETAINING THE ORIGINAL PARAMETER WEIGHT SIGNS, ACROSS STATES, WILL THE SAME SIGN RESULTS AS THE CITY BLOCK METHOD, AND BECAUSE OF THE SIMPLICITY OF PROCEDURE AND INTERPRETATION IT IS THE METHOD USED.

(7). IF A NUMERICAL SEQUENCE SUCH AS 1, 3, 5 IS ASSIGNED THE NUMBERS 1, 2, 3, THE ORIGINAL NUMBERS HAVE BEEN CONVERTED TO RANK NUMBERS. THAT IS, EACH HIGHER GRADATION IN THE ORIGINAL DISTRIBUTION IS GIVEN A HIGHER RANK SCORE. THUS, IF AN ORIGINAL DISTRIBUTION JUMPS (NO NUMBERS BETWEEN) FROM 5 TO 100, THE RANK DIFFERENCE WOULD ONLY BE ONE, SUCH AS FROM 3 TO 4 OR 5 TO 6. WHEN THIS IS DONE IT IS ASSUMED THAT EACH NUMERICAL GRADATION EXPRESSES ONE DEGREE DIFFERENCE IN RANK GRADITION, BUT THAT THE EXACT DIFFERENCE BETWEEN RANKS, IN INTERVAL TERMS, IS UNSPECIFIED. IT SHOULD BE APPARENT THAT CONVERTING RAW DISTRIBUTIONS TO RANK DISTRIBUTIONS >PULLS IN> DEVIATE CASES. FOR EXAMPLE, IF RAW = 1 2

100, THEN RANK = 1 2 3, AND 100 HAS BEEN >PULLED IN.>

(8). THE EIGENVALUES OF A SYMMETRIC MATRIX S MAY BE DEFINED AS: E = VSV' WHERE E IS A DIAGONAL MATRIX OF EIGENVALUES, AND V IS AN ORTHOGONAL MATRIX OF EIGENVECTORS. THE COMPUTATION OF EIGENVALUES IS FREQUENTLY THE FIRST STEP IN ADVANCED STATISTICAL APPLICATIONS SUCH AS FACTOR ANALYSIS.

THE EIGENVECTORS OF MATRIX A ARE GIVEN BY THE EXPRESSION: (A-E)V = 0, WHERE A IS A SQUARE MATRIX, E IS THE DIAGONAL MATRIX OF EIGENVALUES AND V IS A MATRIX COMPOSED OF EIGENVECTORS. THAT IS, WHEN THE MATRIX E IS SUBTRACTED FROM A, THE EIGENVECTOR MATRIX IS THAT MATRIX WHICH, IF PREMULTIPLIED BY A - E EQUALS A VECTOR OF ZEROS. IN THIS CONNECTION, USING A MATRIX OF ZEROS FOR V IS VIEWED AS TRIVIAL SOLUTION. EIGENVALUES HAVE CONSIDERABLE VALUE IN MANY KINDS OF APPLICATIONS. FOR EXAMPLE, THE EIGENVALUES OF A CORRELATION MATRIX ARE SCALED TO PRODUCE THE PRINCIPAL COMPONENT'S LOADINGS MATRIX IN FACTOR ANALYSIS.

(9). THE AVERAGE STANDARD ERROR FOR THE JUDGES WAS .20. THUS, REPEATED SAMPLES SHOULD FALL INTO LIMITS OF + OR .40 AROUND THE MEANS REPORTED ABOVE, 95% OF THE TIME, IF REPEATED SAMPLES ARE TAKEN.

(10). BECAUSE ONLY ONE DEPENDANT VARIABLE WAS USED, THESE ARE THE EQUIVALENT OF A MULTIPLE REGRESSION ANALYSIS WITH THE CANONICAL CORRELATIONS EQUAL TO R.

(11). NO TESTS OF SIGNIFICANCE ARE POSSIBLE WITH THESE CORRELATIONS BECAUSE SOME GROUPS ARE SUB-GROUPS OF OTHERS . HOWEVER, THE CORRELATIONS CAN BE INTERPRETED IN A PURELY

DESCRIPTIVE SENSE.

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NOTE! CERTAIN MATERIALS MAY BE TRUNCATED, WHERE TRUNCATION IS INDICATED BY A LINE OF **********, TO REDUCE REDUNDANCY OR FACILITATE FLOW. IF THE MATERIAL IS NOT FOUND IN ANOTHER MONOGRAPH, IT CAN BE FOUND, IN IT'S ENTIRETY, AT THE END OF THE MONOGRAPH.

TABLE 1

D-SPACE ROTATED LOADINGS

(GENERATED FROM FACTOR ANALYZING 144 DISTANCE VARIABLES)

01 POWER BASE DISTANCE

030 TOTAL GNP (IN MILLIONS U.S. DOLLARS)

.91 057 TOTAL EDUCATION EXPENDITURE (IN MILLION U.S. DOLLARS)

.88 119 TOTAL ENERGY CONSUMPTION IN METRIC TONS OF COAL EQUIVALENT

.86 098 PROPORTION OF TOTAL WORLD TRADE

.85 094 TOTAL IMPORTS

.85 036 TOTAL TRADE, 1960 (IN MILLIONS U.S. DOLLARS)

.83 114 TOTAL HIGHWAY VEHICLES

.82 096 TOTAL EXPORTS

.81 110 TOTAL PASSENGER CARS

.79 092 TOTAL TELEPHONES

.79 041 PERCENTAGE CONTRIBUTION TO WORLD TOTAL OF SCIENTIFIC AUTHORS .78 086 NATIONAL GOVERNMENT EXPENDITURE

.78 084 NATIONAL GOVERNMENT REVENUE

.76 060 TOTAL HEALTH EXPENDITURE (IN MILLIONS U.S. DOLLARS)

.75 112 TOTAL COMMERCIAL VEHICLES

.75 109 RAIL PASSENGER KILOMETERS

.73 048 TOTAL NUMBER OF PHYSICIANS

.72 080 POPULATION IN CITIES OF 100, 000+

.72 105 TOTAL UNIVERSITY ENROLLMENT

.72 082 POPULATION IN CITIES OF 50, 000+

.71 088 RAILROAD MILEAGE

.70 101 TOTAL SECONDARY SCHOOL ENROLLMENT

.64 040 TOTAL SCIENTIFIC AND TECHNICAL SERIALS PUBLISHED

.62 107 TOTAL SCHOOL ENROLLMENT

.56 066 TOTAL INTERNAL SECURITY FORCES (IN UNITS)

.56 099 TOTAL PRIMARY SCHOOL ENROLLMENT

.55 121 BOOK PRODUCTION BY TITLES

.54 090 ALL MAIL

.54 001 TOTAL POPULATION

.49

02 ECONOMIC DEVELOPMENT DISTANCE

085 NATIONAL GOVERNMENT REVENUE PER CAPITA

.88 051 GNP PER CAPITA (IN U.S. DOLLARS)

.87 087 NATIONAL GOVERNMENT EXPENDITURE PER CAPITA

.87 115 TOTAL HIGHWAY VEHICLES PER CAPITA

.86 111 PASSENGER CARS PER CAPITA

.84 116 GROSS DOMESTIC PRODUCT PER CAPITA

.84 093 TELEPHONES PER CAPITA

.84 058 EDUCATION EXPENDITURE PER CAPITA (IN MILLION U.S. DOLLARS)

.83 095 IMPORTS PER CAPITA

.81 120 ENERGY CONSUMPTION IN KILOGRAS PER CAPITA

.80 113 COMMERCIAL VEHICLES PER CAPITA

.80 097 EXPORTS PER CAPITA

.75 015 RADIOS PER 1, 000 POPULATION

.75 091 ALL MAIL PER CAPITA

.69 016 TELEVISIONS PER 1, 000 POPULATION

.68 049 PHYSICIANS PER ONE MILLION POPULATION, 1965

.65 017 CINEMA ATTENDANCE PER CAPITA, 1960

.64 014 NEWSPAPERS PER 1, 000 POPULATION

.63 019 UNADJUSTED SCHOOL ENROLLMENT RATIO

.60 061 HEALTH EXPENDITURE PER CAPITA

.60 018 LITERACY RATES

.58 020 ADJUSTED SCHOOL ENROLLMENT RATIO

.58 043 PERCENTAGE OF GROSS DOMESTIC PRODUCT ORIGINATING IN INDUSTRY

.54 122 BOOK PRODUCTION BY TITLES PER MILLION POPULATION

.53 055 DEFENSE EXPENDITURE PER CAPITA (IN U.S. DOLLARS)

.50

03 POLITICAL DISTANCE

129 AGGREGATE COMPETITION INDEX

.87 128 PARTY LEGITIMACY

.84 127 COMPETITIVENESS OF NOMINATING PROCESS

.82 077 LEGISLATIVE EFFECTIVENESS

.80 126 SIZE OF LEGISLATURE/NUMBER OF SEATS HELD BY LARGEST PARTY

.78 064 ELECTORAL IRREGULARITY SCORE

.61 065 PRESS FREEDOM INDEX

.58 063 POLITICAL PARTY FRACTIONALIZATION BASED ON NUMBER OF SEATS, 1964 .55

04 SCHOOL ENROLLMENT DISTANCE

104 PRIMARY AND SECONDARY ENROLLMENT PER CAPITA

.92 108 TOTAL SCHOOL ENROLLMENT PER CAPITA

.90 100 PRIMARY SCHOOL ENROLLMENT PER CAPITA

.89

05 INTERNAL POLITICAL TURMOIL DISTANCE

142 MEAN UNSUCCESSFUL IRREGULAR POWER TRANSFERS, 1963-1967

.79 074 MILITARY REGIME

.76 136 MEAN NUMBER OF IRREGULAR POWER TRANSFERS DURING 1963-1967

. 3 075 MEAN NUMBER OF MAJOR CONSTITUTIONAL CHANGES, 1962-1966

.67 137 MEAN NUMBER OF POLITICAL ASSASSINATIONS DURING 1963-1967

.67 143 MEAN NUMBER OF POLITICAL EXECUTIONS DURING 1963-1967

.63

06 INTERNAL VIOLENCE CLOSENESS

144 MEAN RELAXATIONS OF GOV. RETRICTIONS ON POL. ACTIVITY, 1963-1967 -.52 133 MEAN NUMBER OF DEATHS FROM DOMESTIC VIOLENCE DURING 1963-1967 -.71 132 MEAN NUMBER OF ARMED ATTACKS DURING 1963-1967 -.75

07 MILITARISM DISTANCE

052 MILITARY MANPOWER PER ONE THOUSAND WORKING AGED POPULATION .88 051 MILITARY MANPOWER PER ONE THOUSAND POPULATION .88 053 MILITARY MANPOWER PER AREA .57 055 DEFENSE EXPENDITURE PER CAPITA (IN U.S. DOLLARS) .52 050 TOTAL MILITARY MANPOWER .52

08 DATE OF INDEPENDENCE DISTANCE

070 DATE OF INDEPENDENCE(BANKS) .86 072 DATE OF INDEPENDENT IDENTIFICATION(RUSTOW) .86 071 DATE OF INSTITUTIONAL FORMATION(HUDSON) .86

09 POPULATION GROWTH RATE DISTANCE

002 POPULATION GROWTH RATE, 1960-65

.88 003 POPULATION GROWTH RATE, 1950-65

.87 011 WORKING AGE POPULATION

.60 012 ADULT POPULATION

.56

10 DENSITY DISTANCE

005 DENSITY(PEOPLE PER SQUARE KILOMETER)

.85 007 PEOPLE PER SQUARE KILOMETER OF AGRICULTURALI LAND AREA

.79 053 MILITARY MANPOWER PER AREA

.56

11 INTERNAL SECURITY FORCES DISTANCE

067 INTERNAL SECURITY FORCES PER ONE THOUSAND WORKING AGE POP.

.93 068 INTERNAL SECURITY FORCES PER ONE MILLION POPULATION

.92

12 POPULATION SIZE DISTANCE

107 TOTAL SCHOOL ENROLLMENT

.75 099 TOTAL PRIMARY SCHOOL ENROLLMENT

.75 103 TOTAL PRIMARY AND SECONDARY ENROLLMENT

.74 001 TOTAL POPULATION

.59 101 TOTAL SECONDARY SCHOOL ENROLLMENT

.58 050 TOTAL MILITARY MANPOWER

.52 080 POPULATION IN CITIES OF 100, 000+

.50

13 RELIGIOUS DISTANCE

023 CHRISTIAN COMMUNITY, % OF THE TOTAL POP.

.79 026 CATHOLIC, % OF THE TOTAL POP.

.76 024 MOSLEM, % OF THE TOTAL POP.

.72

14 ENERGY PRODUCTION DISTANCE

118 ENERGY PRODUCTION IN KILOGRAMS PER CAPITA

.81 117 TOTAL ENERGY PRODUCTION IN METRIC TONS COAL EQUIVALENT

.81

15 GNP GROWTH RATE DISTANCE

035 TOTAL GNP PER CAPITA GROWTH RATES, ANNUAL AVERAGES, 1960-1965

.60 034 TOTAL GNP GROWTH RATES, ANNUAL AVERAGES, 1960-1965

.50

16 FIXED PRICES GNP GROWTH RATE CLOSENESS

032 GNP AT FIXED PRICES FOR CALCULATING GROWTH RATES

-.70 033 GNP PER CAPITA AT FIXED PRICES (GROWTH RATES)

-.76

17 ETHNO-LINGUISTIC FRACTIONALIZATION CLOSENESS

021 ETHNO-LINGUISTIC FRACTIONALIZATION

-.75 022 LINGUISTIC FRACTIONALIZATION, MULLER SCALE

-.78

18 PER CENT URBAN POPULATION DISTANCE

081 PER CAPITA POPULATION IN CITIES OF 100, 000+

.69 083 PER CAPITA POPULATION IN CITIES OF 50, 000+

.66

19 ALL MAIL CLOSENESS

20 POLITICAL PARTY FRACTIONALIZATION CLOSENESS

065 PRESS FREEDOM INDEX

-.56 063 POLITICAL PARTY FRACTIONALIZATION BASED ON NUMBER OF SEATS, 1964 -.60

21 DOMESTIC TURMOIL DISTANCE

130 MEAN NUMBER OF PROTEST DEMONSTRATIONS DURING 1963-1967

.65 140 MEAN NUMBER OF POLITICAL STRIKES DURING 1963-1967

.64 131 MEAN NUMBER OF RIOTS DURING 1963-1967

.58

22 TOTAL AREA CLOSENESS

004 TOTAL AREA

-.82 006 TOTAL AGRICULTURAL AREA

-.84

23 PER CAPITA ENERGY CONSUMPTION GROWTH RATE DISTANCE

029 ENERGY CONSUMPTION PER CAPITA GROWTH RATES

.67 025 PROTESTANT, % OF THE TOTAL POP.

.51

24 INFANT MORTALITY CLOSENESS

010 INFANT MORTALITY RATES

-.60

25 AGE OF CURRENCY CLOSENESS

123 AGE OF CURRENCY IN MONTHS

.63 124 RATIO OF BLACK MARKET TO OFFICIAL EXCHANGE RATE

.52

26 TOTAL HEALTH EXPENDITURE CLOSENESS

062 TOTAL HEALTH EXPENDITURE AS A PERCENTAGE OF GROSS NATIONAL PRODUCT -.81

27 CRUDE DEATH RATE CLOSENESS

008 CRUDE BIRTH RATES, 1960

-.50 009 CRUDE DEATH RATES, 1960

-.78

28 REGULAR EXECUTIVE TRANSFERS CLOSENESS

134 MEAN NUMBER OF REGULAR EXECUTIVE TRANSFERS DURING 1963-1967

-.61

29 PER CAPITA ECONOMIC ACTIVE MALE POPULATION DISTANCE

30 CONCENTRATION OF EXPORT COMMODITIES CLOSENESS

31 MEAN ELECTIONS DISTANCE

138 MEAN NUMBER OF ELECTIONS DURING 1963-1967

.69

32 CONCENTRATION OF EXPORT RECEIVERS DISTANCE

039 CONCENTRATION OF EXPORT RECEIVING COUNTRIES

.60

33 ORTHODOX COMMUNITY CLOSENESS

028 ORTHODOX COMMUNITY, % OF THE TOTAL POP.

-.69

TABLE 2

WEIS COOPERATION CLASSIFICATIONS

1. YIELD 3.5 2. APPROVE 2.9 3. PROMISE 3.0 4. GRANT 3.3 5. REWARD 4.5 6. AGREE 3.0 7. REQUEST 2.7 8. PROPOSE 2.8 (THE NUMBERS ARE THE ADDITIVE WEIGHTS EXPLAINED BELOW)

TABLE 3

WEIS TOTAL COOPERATION SCORES

1	AFGHANISTAN	5.70
2	ALBANIA	31.30
3	ALGERIA	71.20
4	ARGENTINA	30.70
5	AUSTRALIA	165.20
6	AUSTRIA	33.10
7	BELGIUM	41.80
8	BOLIVIA	22.60
9	BRAZIL	48.60
10	BULGARIA	39.60
11	BURMA	8.90
12	BURUNDI	12.00
13	CAMBODIA	97.50
14	CAMEROUN	.00
15	CANADA	167.90
16	CENTRAL AFRICAN REP	9.10
17	CEYLON	29.60
18	CHAD	11.80
19	CHILE	20.30
20	CHINA, PR	426.20
21	COLOMBIA	29.90
22	CONGO (BRA)	2.90
23	CONGO (LEO)	62.90

24	COSTA RICA	8.70
25	CUBA	154.50
26	CYPRUS	15.10
27	CZECHOSLOVAKIA	221.90
28	DAHOMEY	.00
29	DENMARK	28.50
30	DOMINICAN REPUBLIC	17.40
31	ECUADOR	15.30
32	EL SALVADOR	3.10
33	ETHIOPIA	34.00
34	FINLAND	18.00
35	FRANCE	495.90
36	GABON	2.70
37	EAST GERMANY	206.20
38	WEST GERMANY	489.10
39	GHANA	66.90
40	GREECE	72.90
41	GUATEMALA	2.90
42	GUINEA	22.60
43	HAITI	2.80
44	HONDURAS	11.80
45	HUNGARY	47.60
46	ICELAND	.00
47	INDIA	198.00
48	INDONESIA	133.00
49	IRAN	58.30

50	IRAQ	108.70
51	IRELAND	10.00
52	ISRAEL	241.70
53	ITALY	119.80
54	IVORY COAST	6.20
55	JAMAICA	.00
56	JAPAN	209.30
57	JORDAN	140.00
58	NORTH KOREA	58.40
59	SOUTH KOREA	102.00
60	LAOS	24.20
61	LEBANON	27.20
62	LIBERIA	7.40
63	LIBYA	11.60
64	LUXEMBOURG	.00
65	MALAGASY REP	6.20
66	MALI	.00
67	MAURITANIA	5.60
68	MEXICO	46.30
69	MONGOLIA	8.60
70	MOROCCO	26.20
71	NEPAL	6.20
72	NETHERLANDS	38.90
73	NEW ZEALAND	46.00
74	NICARAGUA	2.90
75	NIGER	3.30

76	NIGERIA	36.40
77	NORWAY	24.70
78	PAKISTAN	142.00
79	PANAMA	8.70
80	PARAGUAY	.00
81	PERU	34.50
82	PHILIPPINES	145.20
83	POLAND	108.70
84	PORTUGAL	39.60
85	ROMANIA	134.50
86	RWANDA	5.80
87	SAUDI ARABIA	59.30
88	SENEGAL	5.70
89	SIERRA LEONE	8.40
90	SOMALIA	15.20
91	SOUTH AFRICA	34.60
92	SPAIN	124.00
93	SUDAN	32.80
94	SWEDEN	112.30
95	SWITZERLAND	38.90
96	SYRIA	132.80
97	THAILAND	79.30
98	TOGO	2.70
99	TRINIDAD	.00
100	TUNISIA	24.40
101	TURKEY	61.80
102	UGANDA	17.10
103	U.S.S.R	1467.00
104	U.A.R.	

276.10 105 UNITED KINGDOM 612.60 106 UNITED
STATES 3268.70 107 UPPER VOLTA
.00 108 URUGUAY 8.50 109 VENEZUELA
18.50 110 NORTH VIETNAM 304.30 111 SOUTH VIETNAM
210.30 112 YEMEN 24.20 113 YUGOSLAVIA
131.70 114 BOTSWANA .00 115 GAMBIA
8.10 116 KUWAIT 38.10 117 LESOTHO
.00 118 MALAWI 5.60 119 MALTA
9.90 120 TANZANIA 41.40 121 ZAMBIA
37.60 122 KENYA 26.80 123 W. SAMOA
.00 124 SINGAPORE 37.50 125 GUYANA
31.20 126 MALAYSIA 88.90 127 MALDIVE
ISLANDS 3.30 128 BARBADOS
8.70

TABLE 4

DISTANCE THEORY, WORLD MODEL

1. WORLD .29 .23 1.16
.17 -1.10 -.84 -2.49 -.82 -2.24 -2.11
-2.01 -.08 -4.22

-53

2.46 -1.62 .23 .30 -1.23 -2.28 .73

.26 -2.34 .84

-1.24 -.51 -.27 .97 1.37 -.13 -.52

.04 1.56 1.72

74.28

TABLE 5

THE GROUPS AND THEIR MEMBERS

WORLD 1 1 AFGHANISTAN 2 ALBANIA 3 ALGERIA 4 ARGENTINA 5 AUSTRALIA 6 AUSTRIA 7 BELGIUM 8 BOLIVIA 9 BRAZIL 10 BULGARIA 11 BURMA 12 BURUNDI 13 CAMBODIA 14 CAMEROUN 15 CANADA 16 CENERAL AFICAN REP. 17 CEYLON 18 CHAD 19 CHILE 20 CHINA, PR 21 COLOMBIA 22 CONGO (BRA) 23 CONGO (LEO) 24 COSTA RICA 25 CUBA 26 CYPRUS 27 CZECHOSLOVAKIA 28 DAHOMEY 29 DENMARK 30 DOMINICAN REP. 31 ECUADOR 32 EL SALVADOR 33 ETHIOPIA 34 FINLAND 35 FRANCE 36 GABON 37 EAST GERMANY 38 WEST GERMANY 39 GHANA 40 GREECE 41 GUATEMALA 42 GUINEA 43 HAITI 44 HONDURAS 45 HUNGARY 46 ICELAND 47 INDIA 48 INDONESIA 49 IRAN 50 IRAQ 51 IRELAND 52 ISRAEL 53 ITALY 54 IVORY COAST 55 JAMAICA 56 JAPAN 57 JORDAN 58 NORTH KOREA 59 SOUTH KOREA 60 LAOS 61 LEBANON 62 LIBERIA 63 LIBYA 64 LUXEMBOURG 65 MALAGASY REP. 66 MALI 67 MAURITANIA 68 MEXICO 69 MONGOLIA 70 MOROCCO 71 NEPAL 72 NETHERLANDS 73 NEW ZEALAND 74 NICARAGUA 75 NIGER 76 NIGERIA 77 NORWAY 78 PAKISTAN 79 PANAMA 80 PARAGUAY 81 PERU 82 PHILIPPINES 83 POLAND 84 PORTUGAL 85 ROMANIA 86 RUANDA 87 SAUDI ARABIA 88 SENEGAL 89 SIERRA LEONE 90 SOMALIA 91 SOUTH AFRICA 92 SPAIN 93 SUDAN 94

SWEDEN 95 SWITZERLAND 96 SYRIA. 97 THAILAND 98 TOGO 99 TRINIDAD 100 TUNISIA 101 TURKEY 102 UGANDA 103 U.S.S.R. 104 U.A.R. 105 UNITED KINGDOM 106 U.S.A. 107 UPPER VOLTA 108 URUGUAY 109 VENEZUELA 110 NORTH VIETNAM 111 SOUTH VIETNAM 112 YEMEN 113 YUGUSLAVIA 114 BOTSWANA 115 GAMBIA 116 KUWAIT 117 LESOTHO 118 MALAWI 119 MALTA 120 TANZANIA 121 ZAMBIA 122 KENYA 123 WEST SAMOA 124 SINGAPORE 125 GUYANA 126 MALAYSIA 127 MALDIVE ISLAND 128 BARBADOS

NATO 2 001 BELGIUM 007 002 CANADA 015 003 DENMARK 029 004 FRANCE 035 005 W. GERMANY 038 006 GREECE 040 007 ICELAND 046 008 ITALY 053 009 LUXEMBORG 064 010 NETHERLANDS 072 011 NORWAY 077 012 PORTUGAL 089 013 TURKEY 101 014 UNITED KINGDOM 105 015 U.S.A. 106

SEATO 3 001 AUSTRALIA 005 002 FRANCE 035 003 NEW ZEALAND 073 004 PAKISTAN 078 005 PHILIPPINES 082 006 THAILAND 097 007 UNITED KINGDOM 105 008 U.S.A. 106

EUROPEAN ECONOMIC COM. 4 001 BELGIUM 007 002 DENMARK 029 003 FRANCE 035 004 W. GERMANY 038 005 IRELAND 051 006 ITLAY 053 007 LUXEMBOURG 064 008 NETHERLANDS 072 009 NORWAY 077 010 UNITED KINGDOM 105

CENTRAL TREATY ORG. 5 001 IRAN 049 002 PAKISTAN 078 003 TURKEY 101 004 UNITED KINGDOM 105 005 U.S.A. 106

OAS 6 001 ARGENTINA 004 002 BOLIVIA 008 003 BRAZIL 009 004 CHILE 019 005 COLOMBIA 021 006 COSTA RICA 024 007 DOMMICAN REP. 030 008

ECUADOR 031 009 EL SALVADOR 032 010 GUATEMALA 041 011 HAITI 043 012 HONDURAS 044 013 JAMAICA 055 014 MEXICO 068 015 NICARAGUA 074 016 PANAMA 079 017 PARAGUAY 080 018 PERU 081 019 TRINIDAD 099 020 U.S.A. 106 021 URUGUAY 108 022 VENEZUELA 109 023 BARBADOS 128

THE ARAB LEAGUE 7 001 ALGERIA 003 002 IRAQ 050 003 JORDAN 057 004 LEBANON 061 005 LIBYA 063 006 MOROCCO 070 007 SAUDI ARABIA 087 008 SUDAN 093 009 SYRIA 096 010 TUNISIA 100 011 U.A.R. 104 012 YEMEN 112 013 KUWAIT 116

ORGANIZATION OF AFRICAN UNITY 8 001 ALGERIA 003 002 BURUNDI 012 003 CAMEROON 014 004 CEN. AFRICAN REP. 016 005 CHAD 018 006 CONGO (BRA) 022 007 CONGO (LEO) 023 008 DAHOMEY 028 009 ETHIOPIA 033 010 GABON 036 011 GHANA 039 012 GUINEA 042 013 IVORY COAST 054 014 LIBERIA 062 015 LIBYA 063 016 MALAGASY REP. 065 017 MALI 066 018 MAURITANIA 067 019 MOROCCO 070 020 NIGER 075 021 NIGERIA 076 022 RWANDA 086 023 SENEGAL 088 024 SIERRA LEONE 089 025 SOMALIA 090 026 SUDAN 093 027 TOGO 098 028 TUNISIA 100 029 UGANDA 102 030 U.A.R. 104 031 UPPER VOLTA 107 032 BOTSWANA 114 033 GAMBIA 115 034 LESOTHO 117 035 MALAWI 118 036 TANZANIA 120 037 ZAMBIA 121 038 KENYA 122

ANZUS 9 001 AUSTRALIA 005 002 NEW ZEALAND 073 003 U.S.A. 106

ODECA 10 001 COSTA RICA 024 002 EL SALVADOR 032 003 GUATEMALA 041 004 HONDURAS 044 005 NICARAGUA 074

COMMONWEALTH 11 001 AUSTRALIA 005 002 CANADA 015 003 CEYLON 017

004 CYPRUS 026 005 GHANA 039 006 INDIA 047 007 JAMAICA 055 008 NEW ZEALAND 073 009 NIGERIA 076 010 PAKISTAN 078 011 SIERRA LEONE 089 012 TRINIDAD 099 013 UGANDA 102 014 UNITED KINGDOM 105 015 BOTSWANA 114 016 GAMBIA 115 017 LESOTHO 117 018 MALAWI 118 019 MALTA 119 020 TANZANIA 120 021 ZAMBIA 121 022 KENYA 122 023 SINGAPORE 124 024 GUYANA 125 025 MALAYSIA 126 026 BARBADOS 128

COMECON 12 001 BULGARIA 010 002 CZECHOSLOVAKIA 027 003 EAST GERMANY 037 004 HUNGARY 045 005 MONGOLIA 069 006 POLAND 083 007 RUMANIA 085 008 U.S.S.R. 103

LAFTA 13 001 ARGENTINA 004 002 BOLIVIA 008 003 BRAZIL 009 004 CHILE 019 005 COLOMBIA 021 006 ECUADOR 031 007 MEXICO 068 008 PARAGUAY 080 009 PERU 081 010 URUGUAY 108 011 VENEZUELA 109

WARSAW PACT 14 001 BULGARIA 010 002 CZECHOSLOVAKIA 027 003 EAST GERMANY 037 004 HUNGARY 045 005 POLAND 083 006 RUMANIA 085 007 U.S.S.R. 103

EUROPEAN COAL & STEEL COM. 15 001 BELGIUM 007 002 FRANCE 035 003 WEST GERMANY 038 004 ITALY 053 005 LUXEMBOURG 064 006 NETHERLANDS 072

COUNCIL OF EUROPE 16 001 AUSTRIA 006 002 BELGIUM 007 003 CYPRUS 026 004 DENMARK 029 005 FRANCE 035 006 WEST GERMANY 038 007 ICELAND 046 008 IRELAND 051 009 ITALY 053 010 LUXEMBOURG 064 011 NETHERLANDS 072 012 NORWAY 077 013 SWEDEN 094 014 SWITZERLAND 095 015 TURKEY 101 016 UNITED KINGDOM 105 017 MALTA 119

OPEC 17 001 ALGERIA 003 002 INDONESIA 048 003 IRAN 049 004 IRAQ 050 005 LIBYA 063 006 NIGERIA 076 007 SAUDI ARABIA 087 008 VENEZUELA 109 009 KUWAIT 116

ASIA & PACIFIC COUNCIL 18 001 AUSTRALIA 005 002 JAPAN 056 003 SOUTH KOREA 059 004 NEW ZEALAND 073 005 PHILIPPINES 082 006 THAILAND 097 007 SOUTH VIETNAM 111 008 MALAYSIA 126

FRENCH COM. 19 001 CAMEROON 014 002 CEN. AFRICAN REP. 016 003 CHAD 018 004 CONGO (BRA) 022 005 DAHOMEY 028 006 FRANCE 035 007 GABON 036 008 IVORY COAST 054 009 MALAGASY REP. 065 010 MALI 066 011 NIGER 075 012 SENEGAL 088 013 TOGO 098 014 UPPER VOLTA 107

NEU 20 001 BELGIUM 007 002 FRANCE 035 003 WEST GERMANY 038 004 ITALY 053 005 LUXEMBOURG 064 006 NETHERLANDS 072 007 UNITED KINGDOM 105

LATIN AMERICA 21 001 ARGENTIAN 004 002 BOLIVIA 008 003 BRAZIL 009 004 CHILE 019 005 COLOMBIA 021 006 COSTA RICA 024 007 CUBA 025 008 DOMINICAN REP. 030 009 ECUADOR 031 010 EL SALVADOR 032 011 GUATEMALA 041 012 HAITI 043 013 HONDURAS 044 014 JAMAICA 055 015 MEXICO 068 016 NICARAGUA 074 017 PANAMA 079 018 PARAGUAY 080 019 PERU 081 020 TRINIDAD 099 021 URUGUAY 108 022 VENEZUELA 109 023 GUYANA 125 024 BARBADOS 128

ASIA 22 001 AFGHANISTAN 001 002 AUSTRALIA 005 003 BURMA 011 004 CAMBODIA 013 005 CEYLON 017 006 CHINA, PR 020 007 INDIA 047 008 INDONESIA 048 009 JAPAN 056 010 NORTH KOREA 058 011 SOUTH KOREA

059 012 LAOS 060 013 MONGOLIA 069 014 NEPAL 071 015 NEW ZEALAND 073 016 PAKISTAN 078 017 PHILIPPINES 082 018 THAILAND 097 019 NORTH VIETNAM 110 020 SOUTH VIETNAM 111 021 WEST SAMOA 123 022 SINGAPORE 124 023 MALAYSIA 126 024 MALDIVE ISLANDS 127

AFRICA 23 001 ALGERIA 003 002 BURRUNDI 012 003 CAMEROUN 014 004 CEN9 AFRICAN REP9 016 005 CHAD 018 006 CONGO (BRA) 022 007 CONGO (LEO) 023 008 DAHOMEY 028 009 ETHIOPIA 033 010 GABON 036 011 GHANA 039 012 GUINEA 042 013 IVORY COAST 054 014 LIBERIA 062 015 LIBYA 063 016 MALAGASY REP. 065 017 MALI 066 018 MAURITANIA 067 019 MOROCCO 070 020 NIGER 075 021 NIGERIA 076 022 RWANDA 086 023 SENEGAL 088 024 SIERRA LEONE 089 025 SOMALIA 090 026 SOUTH AFRICA 091 027 SUDAN 093 028 TOGO 098 029 TUNISICA 100 030 UGANDA 102 031 U.A.R. 104 032 UPPER VOLTA 107 033 BOTSWANA 114 034 GAMBIA 115 035 LESOTHO 117 036 MALAWI 118 037 TANZANIA 120 038 ZAMBIA 121 039 KENYA 122

WESTERN EUROPE 24 001 AUSTRIA 006 002 BELGIUM 007 003 DENMARK 029 004 FINLAND 034 005 FRANCE 035 006 WEST GERMANY 038 007 GREECE 040 008 ICELAND 046 009 IRELAND 051 010 ITALY 053 011 LUXEMBOURG 064 012 NETHERLANDS 072 013 NORWAY 077 014 PORTUGAL 084 015 SPAIN 092 016 SWEDEN 094 017 SWITZERLAND 095 018 UNITED KINGDOM 105

ALL EUROPE 25 001 ALBANIA 002 002 AUSTRIA 006 003 BELGIUM 007 004 BULGARIA 010 005 CZECHOSLOVAKIA 027 006 DENMARK 029 007 FINLAND 034 008 FRANCE 035 009 EAST GERMANY 037 010 WEST GERMANY 038 011 GREECE 040 012 HUNGARY 045 013 ICELAND 046 014 IRELAND 051 015

ITALY 053 016 LUXEMBOURG 064 017 NETHERLANDS 072 018 NORWAY 077 019 POLAND 083 020 PORTUGAL 084 021 ROMANIA 085 022 SPAIN 092 023 SWEDEN 094 024 SWITZERLAND 095 025 TURKEY 101 026 U.S.S.R. 103 027 UNITED KINGDOM 105 028 YUGOSLAVIA 113 029 MALTA 119

SOVIET BLOC EUROPE 26 001 ALBANIA 002 002 BULGARIA 010 003 CZECHOSLOVAKIA 027 004 EAST GERMANY 037 005 HUNGARY 045 006 POLAND 083 007 ROMANIA 085 008 U.S.S.R. 103 009 YUGOSLAVIA 113

MIDDLE EAST 27 001 CYPRUS 026 002 IRAN 049 003 IRAQ 050 004 ISRAEL 052 005 JORDAN 057 006 LEBANON 061 007 SAUDI ARABIA 087 008 SYRIA 096 009 TURDEY 101 010 U.A.R. 104 011 YEMEN 112 012 DUWAIT 116

AFRO-ASIAN THIRD WORLD 29 001 AFGHANISTAN 001 002 ALGERIA 003 003 BURMA 011 004 BURUNDI 012 005 CAMBODIA 013 006 CAMEROUN 014 007 CEN. AFRICAN REP. 016 008 CEYLON 017 009 CHAD 018 010 CHINA, PR 020 011 CONGO (BRA) 022 012 CONGO (LEO) 023 013 DAHOMEY 028 014 ETHIOPIA 033 015 GABON 036 016 GHANA 039 017 GUINEA 042 018 INDIA 047 019 INDONESIA 048 020 IRAN 049 021 IRAQ 050 022 IVORY COAST 054 023 JORDAN 057 024 NORTH KOREA 058 025 LAOS 060 026 LEBANON 061 027 LIBERIA 062 028 LIBYA 063 029 MALAGASY REP. 065 030 MALI 066 031 MAURITANIA 067 032 MOROCCO 070 033 NEPAL 071 034 NIGER 075 035 NIGERIA 076 036 PAKISTAN 078 037 PHILIPPINES 082 038 RWANDA 086 039 SAUDI ARABIA 087 040 SENEGAL 088 041 SIERRA LEONE 089 042 SOMALIA 090 043 SUDAN 093 044 SYRIA 096 045 THAILAND 097 046 TOGO 098 047 TUNISIA 100 048 UGANDA 102 049 U.A.R. 104 050 UPPER VOLTA 107 051 NORTH VIETNAM 110 052 YEMEN 112 053 BOTSWANA 114 054

GAMBIA 115 055 KUWAIT 116 056 LESOTHO 117 057 MALAWI 118 058 MALTA 119 059 TANZANIA 120 060 ZAMBIA 121 061 KENYA 122 062 WEST SAMOA 123 063 SINGAPORE 124 064 MALAYSIA 126 065 MALDIVE ISLANDS 127

(THE ABOVE CODES ARE:REGIONAL CODES, SUCH AS SEATO 3;COUNTRY CODES, SUCH AS AUSTRALIA 005 AND THE SEQUENCE CODE WITHIN A GROUP, SUCH AS 001 FOR AUSTRALIA, THE FIRST COUNTRY LISTED IN SEATO.)

TABLE 6

LIST SORT OF THE WORLD MODEL WITH THE GROUP MODELS ON SELECTED FACTORS

POWER BASE DISTANCE

29.THIRD WORLD 3.79 8. ORGAN. OF AFRICAN UNITY 2.26 23.AFRICA 2.22 7. ARAB LEAGUE .99 22.ASIA .90 11.COMMONWEALTH .61 27.MID. EAST REGIONAL .52 1. WORLD .29 21.LATIN AMERICA .15 17.OPEC .14 19.FRENCH COMMUNITY .05 10.CEN. AMER. COMMON MARKET -.01 18.ASIA AND PACIFIC COUNCIL -.02 13.LAFTA -.04 6. OAS -.24 9. ANZUS

-.40 5. CENTO -.87 12.COMECON

-.95 26.EASTERN EUROPE -.98 14.WARSAW

PACT -1.05 3. SEATO

-1.15 15.EUROPEAN COAL AND STEEL COM -1.31 20.W.

EUROPEAN UNION -1.69 4. EUROPEAN ECON.

COM. -1.75 16.COUNCIL OF EUROPE

-1.91 24.WESTERN EUROPE -2.05 2. NATO

-2.36 25.EUROPE -2.98

ECONOMIC DEVELOPMENT DISTANCE

29.THIRD WORLD 1.14 8. ORGAN. OF

AFRICAN UNITY .91 23.AFRICA

.91 11.COMMONWEALTH .48 7. ARAB

LEAGUE .35 27.MID. EAST REGIONAL

.34 6. OAS .27 21.LATIN

AMERICA .26 1. WORLD

.23 13.LAFTA .22 22.ASIA

.15 5. CENTO .14 17.OPEC

.10 19.FRENCH COMMUNITY .10 18.ASIA AND

PACIFIC COUNCIL .06 9. ANZUS

-.09 3. SEATO -.16 10.CEN.

AMER. COMMON MARKET -.23 15.EUROPEAN COAL AND

STEEL COM -.24 20.W. EUROPEAN UNION

-.27 2. NATO -.34 14.WARSAW

PACT -.39 12.COMECON

-.40 26.EASTERN EUROPE -.43 4.
EUROPEAN ECON. COM. -.46 16.COUNCIL OF
EUROPE -.66 24.WESTERN EUROPE
-.78 25.EUROPE -1.13

POLITICAL DISTANCE

1. WORLD 1.16 29.THIRD WORLD
.90 21.LATIN AMERICA .53 6. OAS
.53 13.LAFTA .49 8. ORGAN.
OF AFRICAN UNITY .43 23.AFRICA
.39 22.ASIA .31 17.OPEC
.29 7. ARAB LEAGUE .14 14.WARSAW
PACT .10 12.COMECON
.10 26.EASTERN EUROPE .07 19.FRENCH
COMMUNITY .06 27.MID. EAST REGIONAL
.04 18.ASIA AND PACIFIC COUNCIL .02 10.CEN.
AMER. COMMON MARKET -.00 11.COMMONWEALTH
-.01 9. ANZUS -.05 5. CENTO
-.07 15.EUROPEAN COAL AND STEEL COM -.08 3. SEATO
-.08 20.W. EUROPEAN UNION -.11 2. NATO
-.18 25.EUROPE -.19 24.WESTERN
EUROPE -.20 4. EUROPEAN ECON. COM.
-.23 16.COUNCIL OF EUROPE -.35

MILITARISM DISTANCE

13.LAFTA .37 23.AFRICA

.25 8. ORGAN. OF AFRICAN UNITY .21 21.LATIN

AMERICA .19 18.ASIA AND PACIFIC

COUNCIL .15 6. OAS

.10 10.CEN. AMER. COMMON MARKET .02 19.FRENCH

COMMUNITY -.07 3. SEATO

-.11 17.OPEC -.19

11.COMMONWEALTH -.19 9. ANZUS

-.20 15.EUROPEAN COAL AND STEEL COM -.21 20.W.

EUROPEAN UNION -.24 4. EUROPEAN ECON.

COM. -.33 7. ARAB LEAGUE

-.37 22.ASIA -.43 5. CENTO

-.48 24.WESTERN EUROPE -.59 16.COUNCIL

OF EUROPE -.64 14.WARSAW PACT

-.67 29.THIRD WORLD -.73 12.COMECON

-.73 2. NATO -.75 27.MID.

EAST REGIONAL -.76 26.EASTERN EUROPE

-.89 25.EUROPE -1.76 1. WORLD

-2.49

TABLE 7

01 ECONOMIC DEVELOPMENT

085 NATIONAL GOVERNMENT REVENUE PER CAPITA

.92 087 NATIONAL GOVERNMENT EXPENDITURE PER CAPITA

.91 095 IMPORTS PER CAPITA

.91 031 GNP PER CAPITA (IN U.S. DOLLARS)

.90 058 EDUCATION EXPENDITURE PER CAPITA (IN MILLION U.S. DOLLARS)

.89 115 TOTAL HIGHWAY VEHICLES PER CAPITA

.89 111 PASSENGER CARS PER CAPITA

.88 116 GROSS DOMESTIC PRODUCT PER CAPITA

.88 097 EXPORTS PER CAPITA

.87 093 TELEPHONES PER CAPITA

.87 113 COMMERCIAL VEHICLES PER CAPITA

.86 015 RADIOS PER 1, 000 POPULATION

.86 120 ENERGY CONSUMPTION IN KILOGRAS PER CAPITA

.85 016 TELEVISIONS PER 1, 000 POPULATION

.80 017 CINEMA ATTENDANCE PER CAPITA, 1960

.78 061 HEALTH EXPENDITURE PER CAPITA

.77 049 PHYSICIANS PER ONE MILLION POPULATION, 1965

.76 091 ALL MAIL PER CAPITA

.76 020 ADJUSTED SCHOOL ENROLLMENT RATIO

.74 019 UNADJUSTED SCHOOL ENROLLMENT RATIO

.73 043 PERCENTAGE OF GROSS DOMESTIC PRODUCT ORIGINATING IN INDUSTRY

.72 014 NEWSPAPERS PER 1, 000 POPULATION

.72

013 CONCENTRATION OF POPULATION IN CITIES

.71 018 LITERACY RATES

.70 122 BOOK PRODUCTION BY TITLES PER MILLION POPULATION

.70 055 DEFENSE EXPENDITURE PER CAPITA (IN U.S. DOLLARS)

.69 044 GROSS DOMESTIC FIXED CAPITAL FORMATION, % OF GNP

.65 083 PER CAPITA POPULATION IN CITIES OF 50, 000+

.65 047 PROTEINS PER CAPITA PER DIEM, 1960

.63 106 UNIVERSITY ENROLLMENT PER CAPITA

.61 046 CALORIES PER CAPITA PER DIEM, 1960

.61 102 SECONDARY SCHOOL ENROLLMENT PER CAPITA

.59 108 TOTAL SCHOOL ENROLLMENT PER CAPITA

.57 081 PER CAPITA POPULATION IN CITIES OF 100, 000+

.57 118 ENERGY PRODUCTION IN KILOGRAMS PER CAPITA

.55 104 PRIMARY AND SECONDARY ENROLLMENT PER CAPITA

.55 012 ADULT POPULATION

.54 092 TOTAL TELEPHONES

.53 084 NATIONAL GOVERNMENT REVENUE

.52 008 CRUDE BIRTH RATES, 1960

-.55 069 BEGINNING YEAR OF MODERNIZATION

-.55 042 PERCENTAGE OF GROSS DOMESTIC PRODUCT ORIGINATING IN AGRICULTURE -.59

02 POWER BASE

099 TOTAL PRIMARY SCHOLL ENROLLMENT

.94 107 TOTAL SCHOOL ENROLLMENT

.93 001 TOTAL POPULATION

.93 080 POPULATION IN CITIES OF 100, 000+

.92 030 TOTAL GNP (IN MILLIONS U.S. DOLLARS)

.91 101 TOTAL SECONDARY SCHOOL ENROLLMENT

.90 082 POPULATION IN CITIES OF 50, 000+

.89 088 RAILROAD MILEAGE

.88 109 RAIL PASSENGER KILOMETERS

.88 057 TOTAL EDUCATION EXPENDITURE (IN MILLION U.S. DOLLARS)

.87 105 TOTAL UNIVERSITY ENROLLMENT

.85 119 TOTAL ENERGY CONSUMPTION IN METRIC TONS OF COAL EQUIVALENT

.84 066 TOTAL INTERNAL SECURITY FORCES (IN UNITS)

.84 103 TOTAL PRIMARY AND SECONDARY ENROLLMENT

.84 036 TOTAL TRADE, 1960 (IN MILLIONS U.S. DOLLARS)

.82 048 TOTAL NUMBER OF PHYSICIANS

.81 094 TOTAL IMPORTS

.80 098 PROPORTION OF TOTAL WORLD TRADE

.80 060 TOTAL HEALTH EXPENDITURE (IN MILLIONS U.S. DOLLARS)

.80 041 PERCENTAGE CONTRIBUTION TO WORLD TOTAL OF SCIENTIFIC AUTHORS

.79 096 TOTAL EXPORTS

.79 086 NATIONAL GOVERNMENT EXPENDITURE

.78 112 TOTAL COMMERCIAL VEHICLES

.78 050 TOTAL MILITARY MANPOWER

.77 114 TOTAL HIGHWAY VEHICLES

.77 121 BOOK PRODUCTION BY TITLES

.76 092 TOTAL TELEPHONES

.74 084 NATIONAL GOVERNMENT REVENUE

.74 110 TOTAL PASSENGER CARS

.74 040 TOTAL SCIENTIFIC AND TECHNICAL SERIALS PUBLISHED

.72 090 ALL MAIL

.66 054 TOTAL DEFENSE EXPENDITURE (IN MILLIONS U.S. DOLLARS)

.63 027 NUMBER OF SEPARATE CHRISTIAN CHURCHES

.60 006 TOTAL AGRICULTURAL AREA

.57 089 RAILROAD MILEAGE PER SQUARE MILE

.57 144 MEAN RELAXATIONS OF GOV. RETRICTIONS ON POL. ACTIVITY, 1963-1967 .52 139 MEAN NUMBER OF REGIME-SUPPORT DEMONSTRATIONS DURING 1963-1967 .51 117 TOTAL ENERGY PRODUCTION IN METRIC TONS COAL EQUIVALENT

.51 125 SIZE OF LEGISLATURE (LOWER HOUSE)

.51 037 TOTAL TRADE, % OF GNP, 1960

-.51 071 DATE OF INSTITUTIONAL FORMATION(HUDSON)

-.53

03 POLITICAL INSTABILITY

142 MEAN UNSUCCESSFUL IRREGULAR POWER TRANSFERS, 1963-1967

.83 074 MILITARY REGIME

.81 137 MEAN NUMBER OF POLITICAL ASSASSINATIONS DURING 1963-1967

.77 075 MEAN NUMBER OF MAJOR CONSTITUTIONAL CHANGES, 1962-1966

.75 136 MEAN NUMBER OF IRREGULAR POWER TRANSFERS DURING 1963-1967

.73 143 MEAN NUMBER OF POLITICAL EXECUTIONS DURING 1963-1967

.73

04 NON-COMPETITIVE POLITICAL SYSTEM

078 LEGISLATIVE SELECTION

-.50 063 POLITICAL PARTY FRACTIONALIZATION BASED ON NUMBER OF SEATS, 1964

-.70 065 PRESS FREEDOM INDE

-.71 064 ELECTORAL IRREGULARITY SCORE

-.76 126 SIZE OF LEGISLATURE/NUMBER OF SEATS HELD BY LARGEST PARTY

-.80 077 LEGISLATIVE EFFECTIVENESS

-.83 127 COMPETITIVENESS OF NOMINATING PROCESS

-.86 128 PARTY LEGITIMACY

-.87 129 AGGREGATE COMPETITION INDE

-.88

05 SMALL POPULATION GROWTH RATE

011 WORKING AGE POPULATION

.66 012 ADULT POPULATION

.60 003 POPULATION GROWTH RATE, 1950-65

-.82 002 POPULATION GROWTH RATE, 1960-65

-.83

06 SMALL POPULATION DENSITY

004 TOTAL AREA

.72 006 TOTAL AGRICULTURAL AREA

.68 053 MILITARY MANPOWER PER AREA

-.59 007 PEOPLE PER SQUARE KILOMETER OF AGRICULTURAL LAND AREA

-.87 005 DENSITY(PEOPLE PER SQUARE KILOMETER)

-.87

07 SMALL CHRISTIAN COMMUNITY

024 MOSLEM, % OF THE TOTAL POP.

.73 023 CHRISTIAN COMMUNITY, % OF THE TOTAL POP.

-.66 026 CATHOLIC, % OF THE TOTAL POP.

-.77

08 RECENT NATIONAL INDEPENDENCE

072 DATE OF INDEPENDENT IDENTIFICATION(RUSTOW)

.74 070 DATE OF INDEPENDENCE(BANKS)

.72 071 DATE OF INSTITUTIONAL FORMATION(HUDSON)

.67

09 LITTLE DOMESTIC VIOLENCE

135 MEAN NUMBER OF EXECUTIVE ADJUSTMENTS DURING 1963-1967

-.52 130 MEAN NUMBER OF PROTEST DEMONSTRATIONS DURING 1963-1967

-.60 132 MEAN NUMBER OF ARMED ATTACKS DURING 1963-1967

-.63 131 MEAN NUMBER OF RIOTS DURING 1963-1967

-.74

10 LARGE GNP GROWTH RATE AT FIXED PRICES

033 GNP PER CAPITA AT FIXED PRICES (GROWTH RATES)

.74 032 GNP AT FIXED PRICES FOR CALCULATING GROWTH RATES

.73

11 FEW MILITARY PERSONNEL PER CAPITA

050 TOTAL MILITARY MANPOWER

-.49 056 DEFENSE EXPENDITURE, % OF GNP

-.61 051 MILITARY MANPOWER PER ONE THOUSAND POPULATION

-.70 052 MILITARY MANPOWER PER ONE THOUSAND WORKING AGED

POPULATION -.78

12 LARGE GNP GROWTH RATE

034 TOTAL GNP GROWTH RATES, ANNUAL AVERAGES, 1960-1965

.73 035 TOTAL GNP PER CAPITA GROWTH RATES, ANNUAL AVERAGES,

1960-1965 .59

13 SMALL HEALTH EXPENDITURE AS PERCENT OF GNP

062 TOTAL HEALTH EXPENDITURE AS A PERCENTAGE OF GNP

-.84

14 HIGH PER CAPITA SCHOOL ENROLLMENT

100 PRIMARY SCHOOL ENROLLMENT PER CAPITA

.70 104 PRIMARY AND SECONDARY ENROLLMENT PER CAPITA

.69 108 TOTAL SCHOOL ENROLLMENT PER CAPITA

.69

15 HIGH PER CAPITA INTERNAL SECURITY FORCE

067 INTERNAL SECURITY FORCES PER ONE THOUSAND WORKING AGE POP.

.79 068 INTERNAL SECURITY FORCES PER ONE MILLION POPULATION

.74

16 HIGH ENERGY PRODUCTION

117 TOTAL ENERGY PRODUCTION IN METRIC TONS COAL EQUIVALENT

.67 118 ENERGY PRODUCTION IN KILOGRAMS PER CAPITA

.66

17 MANY ELECTIONS

079 MEAN NUMBER OF LEGISLATIVE ELECTIONS, 1962-1966

.79

18 HIGH RATIO OF BLACK MARKET TO OFFICIAL EXCHANGE

124 RATIO OF BLACK MARKET TO OFFICIAL EXCHANGE RATE

-.69

19 FEW EXECUTIVE ADJUSTMENTS

20 LOW CRUDE DEATH RATE

009 CRUDE DEATH RATES, 1960

-.72

21 LITTLE ETHNO-LINGUISTIC FRACTIONALIZATION

022 LINGUISTIC FRACTIONALIZATION, MULLER SCALE

-.71 021 ETHNO-LINGUISTIC FRACTIONALIZATION

-.74

22 NEW CURRENCY

123 AGE OF CURRENCY IN MONTHS

-.82

TABLE 8

CORRELATION OF GROUP ATTRIBUTES

WITH GROUP MODELS

VAR 1 -.78 -.61 .45 .23 -.53 .30 .27 .29 -.24 -.05 .47 -.28
.02 .24 .21 -.17 -.02 .09 -.01 .15 -.11 .15 VAR 2 -.78 -.54
.50 .06 -.52 .36 .26 .24 -.42 .04 .43 -.38 .17 .21 .22
-.12 -.02 .03 -.02 .06 -.08 .11 VAR 3 -.58 -.41 .31 .30 -.42
.24 -.03 .05 -.17 -.08 .45 -.14 -.01 .26 .31 .03 .14 .26
.04 .39 -.11 .32 VAR 4 .39 .17 -.51 -.34 .65 -.37 -.03 .10
.17 .49 -.54 .17 .17 -.62 -.14 -.04 -.19 -.36 -.19 -.46 -.13
-.22 VAR 5 .55 .49 -.30 -.31 .04 -.15 -.26 -.44 -.01 .03 -.29
-.08 .13 .01 -.22 .00 -.03 -.07 .24 -.04 .32 -.21 VAR 6 .14
.19 .53 .06 -.39 .21 -.02 -.39 -.28 -.38 .32 -.10 -.12 .17
.24 .16 .12 .28 -.11 .28 .25 .21 VAR 7 -.27 -.18 .04 -.17
-.38 .27 -.23 -.12 -.21 .13 .38 -.44 .40 .11 -.13 -.16 .02
-.17 .16 .01 .15 -.07 VAR 8 -.24 -.04 .11 .16 .14 .02 .50
.75 .16 .02 -.12 -.00 -.17 -.04 -.11 .02 -.07 .06 -.09 -.21
-.43 -.19 VAR 9 -.23 -.05 .34 .03 -.46 .34 .15 -.10 -.27 -.16
.28 -.34 .11 .23 .03 .05 -.02 -.01 .09 .00 .15 .05 VAR 10
.36 .46 -.19 -.09 .18 .12 -.11 -.09 .17 -.08 -.21 -.08 -.01
.05 -.28 .18 .19 -.01 .10 -.20 .09 -.19 VAR 11 .33 .39 -.14
-.14 -.01 -.00 -.07 -.20 .04 -.07 -.15 -.11 .04 .06 -.21 .12
-.02 -.03 .17 -.09 .13 -.17 VAR 12 -.12 -.64 .15 .18 .03 .04
.09 .16 -.09 .11 .34 .16 -.03 -.34 .02 -.19 -.19 -.20 -.57
.02 .10 .30 VAR 13 .49 .46 -.25 -.14 .24 -.09 -.04 -.14 .17
-.05 -.31 .06 -.01 -.06 -.26 .09 -.02 -.11 .10 -.21 .14 -.19
VAR 14 -.59 -.56 .13 -.21 -.22 .10 .11 .22 -.32 .35 .16 -.28
.26 -.02 .14 -.41 -.09 -.16 .01 -.11 -.05 -.12 VAR 15 .09 .04
-.07 -.35 -.15 .12 -.02 -.19 -.20 .24 .02 -.39 .36 -.15 -.19

-.07 -.18 -.41 -.00 -.32 .19 -.25 VAR 16 -.53 -.43 .38 .45 -.45
.28 -.15 .03 .18 -.60 .64 .08 -.27 .55 -.03 -.15 .40 .36
.07 .42 .01 .16 VAR 17 -.31 -.11 .46 .00 -.55 .32 .23 -.09
-.54 -.08 .17 -.32 .02 .37 .35 .00 -.06 .16 .15 .19 .15
.09 VAR 18 .58 .60 -.41 .12 .59 -.25 -.21 .03 .60 -.29 -.38
.47 -.33 -.01 -.31 .27 .25 .22 .13 -.02 -.22 -.07 VAR 19 .49
.43 -.33 -.32 .20 -.06 -.19 -.21 .08 .07 -.28 -.05 .15 -.04
-.32 -.01 -.01 -.17 .23 -.22 .17 -.27 VAR 20 -.13 .10 .14 .08
-.47 -.03 -.10 -.33 -.20 -.04 .14 -.17 .05 .28 .35 .11 -.08
.28 .35 .45 .07 .15 VAR 21 -.30 -.22 -.08 .53 .33 -.01 .19
.63 .49 -.16 .04 .39 -.34 .02 -.06 .16 .09 .17 -.13 .04
-.49 .20 VAR 22 -.30 -.09 .39 .20 -.45 .50 .00 -.10 -.11 -.36
.47 -.26 -.01 .40 -.03 .12 .23 .12 .05 .11 .12 .13 VAR 23
-.40 -.14 .34 .71 -.06 .20 .12 .42 .33 -.51 .33 .33 -.51
.42 .18 .22 .45 .65 .01 .47 -.35 .37 VAR 24 .64 .65 -.51
-.21 .57 -.36 -.11 .07 .37 .08 -.60 .21 -.07 -.19 -.30 .13
.02 .00 .16 -.21 -.12 -.33 VAR 25 .43 .55 .13 -.00 -.01 .04
.06 -.21 -.03 -.32 -.17 .11 -.18 .24 -.01 .18 .11 .30 .26
.14 .16 .05 VAR 26 .36 .30 -.04 .63 .59 -.12 .11 .21 .67
-.64 -.15 .71 -.72 .24 -.11 .13 .28 .41 -.06 .21 .01 .20
VAR 27 -.66 -.48 .38 .29 -.22 .25 .29 .47 -.09 -.07 .33 -.06
-.11 .17 .20 -.06 .07 .16 -.09 .10 -.28 .16 VAR 28 -.24 -.30
.40 .35 -.33 .03 .08 -.11 -.12 -.30 .31 .16 -.26 .21 .32
-.08 .08 .30 -.12 .43 .16 .36 VAR 29 -.40 -.56 .27 -.01 -.39
.31 .21 .28 -.38 .25 .43 -.44 .23 -.10 -.01 -.16 -.26 -.28
-.29 -.05 .02 .02 VAR 30 .34 .29 -.19 .29 .63 -.05 .13 .32

.47 -.20 -.34 .50 -.41 -.07 -.15 .15 .24 .16 -.08 -.17 -.15

.09 VAR 31 -.07 -.04 .16 .24 -.08 -.26 .67 .22 -.09 .01 -.33

.13 -.18 -.12 .20 .00 -.48 -.10 -.22 -.09 .13 .06 VAR 32 -.52

-.31 .04 .38 -.20 .23 -.34 .27 .16 -.14 .47 -.01 -.05 .41

.08 .01 .44 .44 .26 .53 -.28 .24 VAR 33 .34 .26 -.05 .50

.38 -.19 -.06 .06 .51 -.51 -.14 .70 -.60 .17 .02 .18 .29

.48 -.06 .34 -.08 .28

FIGURE 1

ATTRIBUTE THEORY

A-SPACE		B-SPACE
MONADIC FACTOR SCORES	PREDICT	MONADIC BEHAVIOR SCORES

FIGURE 2

SOCIAL FIELD THEORY

A-SPACE	B-SPACE
DYADIC ALGEBRAIC FROM PREDICT MONADIC FACTOR SCORES	DYADIC DISTANCE COMPUTED BEHAVIOR SCORES

FIGURE 3

IMPLICATIONS OF RUMMEL'S DISTANCE METRIC

BIG - NUMBER, NUMBER, J FAR ABOVE I BIG +NUMBER, MUCH COOPERATION

J SAME AS I AVERAGE COOPERATION

BIG +NUMBER, J FAR BELOW I BIG -NUMBER, LITLE COOPERATION

FIGURE 4 XX

ABSOLUTE DISTANCE METRIC

BIG +NUMBER, J VERY DISTANT FROM I BIG +NUMBER , MUCH COOPERATION

MEDIUM + NUMBER, J AVERAGE DISTANCE FROM I MEDIUM + NUMBER, AVERAGE COOPERATION

0 NUMBER, J SAME AS I 0 NUMBER, LITTLE COOPERATION

FIGURE 5

MODEL OF DISTANCE THEORY

D-SPACE B-SPACE

DYADIC FACTOR SCORES OF ABSOLUTE DISTANCES ON VARIABLES — PREDICT — DYADIC BEHAVIOR SCORES

FIGURE 6

EXPECTATIONS IN DISTANCE THEORY DEPENDING ON OBSERVED SIGN

DISTANCE THEORY, SIGN INTERPRETATION OF CONFLICT AND COOPERATION FLOWS

WHEN I EXPORTS TO J.

I EXPORTS MOST TO FAR J'S ON THE FACTOR AND LEAST TO CLOSE J'S WHEN

+ SIGN ON A FARNESS FACTOR OR

- SIGN ON A CLOSENESS FACTOR.

I EXPORTS LEAST TO FAR J'S ON THE FACTOR AND MOST TO CLOSE J'S WHEN

- SIGN ON A FARNESS FACTOR OR

+ SIGN ON A CLOSENESS FACTOR.

FIGURE 7

INTERPRETATION OF FACTORS IN TERMS OF WHETHER CLOSENESS OR FARNESS CONTRIBUTES TO COOPERATION

FACTORS WHERE DISTANCE PREDICTS COOPERATION

01 POWER BASE DISTANCE 02 ECONOMIC DEVELOPMENT DISTANCE 03 POLITICAL DISTANCE 04 SCHOOL ENROLLMENT DISTANCE 06 INTERNAL VIOLENCE CLOSENESS 14 ENERGY PRODUCTION DISTANCE 19 ALL MAIL CLOSENESS 21 DOMESTIC TURMOIL DISTANCE 22 TOTAL AREA CLOSENESS 23 PER CAPITA ENERGY CONSUMPTION GROWTH RATE DISTANCE 24 INFANT MORTALITY CLOSENESS 25 AGE OF CURRENCY CLOSENESS 26 TOTAL HEALTH EXPENDITURE CLOSENESS 30 CONCENTRATION OF EXPORT COMMODITIES CLOSENESS 31 MEAN ELECTIONS DISTANCE 32 CONCENTRATION OF EXPORT RECEIVERS DISTANCE

FACTORS WHERE CLOSENESS PREDICTS COOPERATION

05 INTERNAL POLITICAL TURMOIL DISTANCE 07 MILITARISM DISTANCE 08 DATE OF INDEPENDENCE DISTANCE 09 POPULATION GROWTH RATE DISTANCE 10 DENSITY DISTANCE 11 INTERNAL SECURITY FORCES DISTANCE 12

POPULATION SIZE DISTANCE 13 RELIGIOUS DISTANCE 15 GNP GROWTH RATE DISTANCE 16 FIXED PRICES GNP GROWTH RATE CLOSENESS 17 ETHNO-LINGUISTIC FRACTIONALIZATION CLOSENESS 18 PER CENT URBAN POPULATION DISTANCE 20 POLITICAL PARTY FRACTIONALIZATION CLOSENESS 27 CRUDE DEATH RATE CLOSENESS 28 REGULAR EXECUTIVE TRANSFERS CLOSENESS 29 PER CAPITA ECONOMIC ACTIVE MALE POPULATION DISTANCE 33 ORTHODOX COMMUNITY CLOSENESS

FIGURE 8

ECONOMIC DEVELOPMENT

POWER BASE NON-COMPETITIVE POLITICAL SYSTEM

01 POWER BASE CLOSENESS CLOSENESS 02 ECONOMIC DEVELOPMENT CLOSENESS CLOSENESS DISTANCE 03 POLITICAL CLOSENESS 04 SCHOOL ENROLLMENT CLOSENESS 05 INTERNAL POLITICAL TURMOIL 06 INTERNAL VIOLENCE CLOSENESS 07 MILITARISM 08 DATE OF INDEPENDENCE 09 POPULATION GROWTH RATE 10 DENSITY 11 INTERNAL SECURITY FORCES 12 POPULATION SIZE CLOSENESS 13 RELIGIOUS 14 ENERGY PRODUCTION CLOSENESS CLOSENESS 15 GNP GROWTH RATE 16 FIXED PRICES GNP GROWTH RATE DISTANCE 17 ETHNO-LINGUISTIC FRACTIONALIZATION 18 PER CENT URBAN POPULATION DISTANCE DISTANCE 19 ALL MAIL 20 POLITICAL PARTY FRACTIONALIZATION 21 DOMESTIC TURMOIL 22 TOTAL AREA 23 PER CAPITA

ENERGY CONSUMPTION GROWTH RATE 24 INFANT MORTALITY

CLOSENESS CLOSENESS DISTANCE 25 AGE OF CURRENCY

CLOSENESS 26 TOTAL HEALTH EXPENDITURE 27 CRUDE DEATH RATE

DISTANCE 28 REGULAR EXECUTIVE TRANSFERS

CLOSENESS 29 PER CAPITA ECONOMIC ACTIVE MALE POPULATION 30

CONCENTRATION OF EXPORT COMMODITIES 31 MEAN ELECTIONS 32

CONCENTRATION OF EXPORT RECEIVERS CLOSENESS 33

ORTHODOX COMMUNITY

COMPLETE VERSION OF TABLE 5

TABLE 1-1.
THE GROUPS AND THEIR MEMBERS

WORLD 1
1 AFGHANISTAN
2 ALBANIA
3 ALGERIA
4 ARGENTINA
5 AUSTRALIA
6 AUSTRIA
7 BELGIUM
8 BOLIVIA
9 BRAZIL
10 BULGARIA
11 BURMA
12 BURUNDI
13 CAMBODIA
14 CAMEROUN
15 CANADA
16 CENERAL AFICAN REP.
17 CEYLON
18 CHAD
19 CHILE

20 CHINA, PR
21 COLOMBIA
22 CONGO (BRA)
23 CONGO (LEO)
24 COSTA RICA
25 CUBA
26 CYPRUS
27 CZECHOSLOVAKIA
28 DAHOMEY
29 DENMARK
30 DOMINICAN REP.
31 ECUADOR
32 EL SALVADOR
33 ETHIOPIA
34 FINLAND
35 FRANCE
36 GABON
37 EAST GERMANY
38 WEST GERMANY
39 GHANA
40 GREECE
41 GUATEMALA
42 GUINEA
43 HAITI
44 HONDURAS
45 HUNGARY
46 ICELAND
47 INDIA
48 INDONESIA
49 IRAN
50 IRAQ
51 IRELAND
52 ISRAEL
53 ITALY
54 IVORY COAST
55 JAMAICA
56 JAPAN
57 JORDAN
58 NORTH KOREA
59 SOUTH KOREA
60 LAOS
61 LEBANON
62 LIBERIA
63 LIBYA
64 LUXEMBOURG
65 MALAGASY REP.
66 MALI
67 MAURITANIA
68 MEXICO
69 MONGOLIA

70 MOROCCO
71 NEPAL
72 NETHERLANDS
73 NEW ZEALAND
74 NICARAGUA
75 NIGER
76 NIGERIA
77 NORWAY
78 PAKISTAN
79 PANAMA
80 PARAGUAY
81 PERU
82 PHILIPPINES
83 POLAND
84 PORTUGAL
85 ROMANIA
86 RUANDA
87 SAUDI ARABIA
88 SENEGAL
89 SIERRA LEONE
90 SOMALIA
91 SOUTH AFRICA
92 SPAIN
93 SUDAN
94 SWEDEN
95 SWITZERLAND
96 SYRIA.
97 THAILAND
98 TOGO
99 TRINIDAD
100 TUNISIA
101 TURKEY
102 UGANDA
103 U.S.S.R.
104 U.A.R.
105 UNITED KINGDOM
106 U.S.A.
107 UPPER VOLTA
108 URUGUAY
109 VENEZUELA
110 NORTH VIETNAM
111 SOUTH VIETNAM
112 YEMEN
113 YUGOSLAVIA
114 BOTSWANA
115 GAMBIA
116 KUWAIT
117 LESOTHO
118 MALAWI
119 MALTA

120 TANZANIA
121 ZAMBIA
122 KENYA
123 WEST SAMOA
124 SINGAPORE
125 GUYANA
126 MALAYSIA
127 MALDIVE ISLAND
128 BARBADOS

NATO 2
001 BELGIUM 007
002 CANADA 015
003 DENMARK 029
004 FRANCE 035
005 W. GERMANY 038
006 GREECE 040
007 ICELAND 046
008 ITALY 053
009 LUXEMBORG 064
010 NETHERLANDS 072
011 NORWAY 077
012 PORTUGAL 089
013 TURKEY 101
014 UNITED KINGDOM 105
015 U.S.A. 106

SEATO 3
001 AUSTRALIA 005
002 FRANCE 035
003 NEW ZEALAND 073
004 PAKISTAN 078
005 PHILIPPINES 082
006 THAILAND 097
007 UNITED KINGDOM 105
008 U.S.A. 106

EUROPEAN ECONOMIC COM. 4
001 BELGIUM 007
002 DENMARK 029
003 FRANCE 035
004 W. GERMANY 038
005 IRELAND 051
006 ITLAY 053
007 LUXEMBOURG 064
008 NETHERLANDS 072
009 NORWAY 077
010 UNITED KINGDOM 105

CENTRAL TREATY ORG. 5

001 IRAN 049
002 PAKISTAN 078
003 TURKEY 101
004 UNITED KINGDOM 105
005 U.S.A. 106

OAS 6
001 ARGENTINA 004
002 BOLIVIA 008
003 BRAZIL 009
004 CHILE 019
005 COLOMBIA 021
006 COSTA RICA 024
007 DOMMICAN REP. 030
008 ECUADOR 031
009 EL SALVADOR 032
010 GUATEMALA 041
011 HAITI 043
012 HONDURAS 044
013 JAMAICA 055
014 MEXICO 068
015 NICARAGUA 074
016 PANAMA 079
017 PARAGUAY 080
018 PERU 081
019 TRINIDAD 099
020 U.S.A. 106
021 URUGUAY 108
022 VENEZUELA 109
023 BARBADOS 128

THE ARAB LEAGUE 7
001 ALGERIA 003
002 IRAQ 050
003 JORDAN 057
004 LEBANON 061
005 LIBYA 063
006 MOROCCO 070
007 SAUDI ARABIA 087
008 SUDAN 093
009 SYRIA 096
010 TUNISIA 100
011 U.A.R. 104
012 YEMEN 112
013 KUWAIT 116

ORGANIZATION OF AFRICAN UNITY 8
001 ALGERIA 003
002 BURUNDI 012
003 CAMEROON 014

004 CEN. AFRICAN REP. 016
005 CHAD 018
006 CONGO (BRA) 022
007 CONGO (LEO) 023
008 DAHOMEY 028
009 ETHIOPIA 033
010 GABON 036
011 GHANA 039
012 GUINEA 042
013 IVORY COAST 054
014 LIBERIA 062
015 LIBYA 063
016 MALAGASY REP. 065
017 MALI 066
018 MAURITANIA 067
019 MOROCCO 070
020 NIGER 075
021 NIGERIA 076
022 RWANDA 086
023 SENEGAL 088
024 SIERRA LEONE 089
025 SOMALIA 090
026 SUDAN 093
027 TOGO 098
028 TUNISIA 100
029 UGANDA 102
030 U.A.R. 104
031 UPPER VOLTA 107
032 BOTSWANA 114
033 GAMBIA 115
034 LESOTHO 117
035 MALAWI 118
036 TANZANIA 120
037 ZAMBIA 121
038 KENYA 122

ANZUS 9
001 AUSTRALIA 005
002 NEW ZEALAND 073
003 U.S.A. 106

ODECA 10
001 COSTA RICA 024
002 EL SALVADOR 032
003 GUATEMALA 041
004 HONDURAS 044
005 NICARAGUA 074

COMMONWEALTH 11

001 AUSTRALIA 005
002 CANADA 015
003 CEYLON 017
004 CYPRUS 026
005 GHANA 039
006 INDIA 047
007 JAMAICA 055
008 NEW ZEALAND 073
009 NIGERIA 076
010 PAKISTAN 078
011 SIERRA LEONE 089
012 TRINIDAD 099
013 UGANDA 102
014 UNITED KINGDOM 105
015 BOTSWANA 114
016 GAMBIA 115
017 LESOTHO 117
018 MALAWI 118
019 MALTA 119
020 TANZANIA 120
021 ZAMBIA 121
022 KENYA 122
023 SINGAPORE 124
024 GUYANA 125
025 MALAYSIA 126
026 BARBADOS 128

COMECON 12
001 BULGARIA 010
002 CZECHOSLOVAKIA 027
003 EAST GERMANY 037
004 HUNGARY 045
005 MONGOLIA 069
006 POLAND 083
007 RUMANIA 085
008 U.S.S.R. 103

LAFTA 13
001 ARGENTINA 004
002 BOLIVIA 008
003 BRAZIL 009
004 CHILE 019
005 COLOMBIA 021
006 ECUADOR 031
007 MEXICO 068
008 PARAGUAY 080
009 PERU 081
010 URUGUAY 108
011 VENEZUELA 109

WARSAW PACT 14
001 BULGARIA 010
002 CZECHOSLOVAKIA 027
003 EAST GERMANY 037
004 HUNGARY 045
005 POLAND 083
006 RUMANIA 085
007 U.S.S.R. 103

EUROPEAN COAL & STEEL COM. 15
001 BELGIUM 007
002 FRANCE 035
003 WEST GERMANY 038
004 ITALY 053
005 LUXEMBOURG 064
006 NETHERLANDS 072

COUNCIL OF EUROPE 16
001 AUSTRIA 006
002 BELGIUM 007
003 CYPRUS 026
004 DENMARK 029
005 FRANCE 035
006 WEST GERMANY 038
007 ICELAND 046
008 IRELAND 051
009 ITALY 053
010 LUXEMBOURG 064
011 NETHERLANDS 072
012 NORWAY 077
013 SWEDEN 094
014 SWITZERLAND 095
015 TURKEY 101
016 UNITED KINGDOM 105
017 MALTA 119

OPEC 17
001 ALGERIA 003
002 INDONESIA 048
003 IRAN 049
004 IRAQ 050
005 LIBYA 063
006 NIGERIA 076
007 SAUDI ARABIA 087
008 VENEZUELA 109
009 KUWAIT 116

ASIA & PACIFIC COUNCIL 18
001 AUSTRALIA 005

002 JAPAN 056
003 SOUTH KOREA 059
004 NEW ZEALAND 073
005 PHILIPPINES 082
006 THAILAND 097
007 SOUTH VIETNAM 111
008 MALAYSIA 126

FRENCH COM. 19
001 CAMEROON 014
002 CEN. AFRICAN REP. 016
003 CHAD 018
004 CONGO (BRA) 022
005 DAHOMEY 028
006 FRANCE 035
007 GABON 036
008 IVORY COAST 054
009 MALAGASY REP. 065
010 MALI 066
011 NIGER 075
012 SENEGAL 088
013 TOGO 098
014 UPPER VOLTA 107

WEU 20
001 BELGIUM 007
002 FRANCE 035
003 WEST GERMANY 038
004 ITALY 053
005 LUXEMBOURG 064
006 NETHERLANDS 072
007 UNITED KINGDOM 105

LATIN AMERICA 21
001 ARGENTIAN 004
002 BOLIVIA 008
003 BRAZIL 009
004 CHILE 019
005 COLOMBIA 021
006 COSTA RICA 024
007 CUBA 025
008 DOMINICAN REP. 030
009 ECUADOR 031
010 EL SALVADOR 032
011 GUATEMALA 041
012 HAITI 043
013 HONDURAS 044
014 JAMAICA 055
015 MEXICO 068
016 NICARAGUA 074

017 PANAMA 079
018 PARAGUAY 080
019 PERU 081
020 TRINIDAD 099
021 URUGUAY 108
022 VENEZUELA 109
023 GUYANA 125
024 BARBADOS 128

ASIA 22
001 AFGHANISTAN 001
002 AUSTRALIA 005
003 BURMA 011
004 CAMBODIA 015
005 CEYLON 017
006 CHINA, PR 020
007 INDIA 047
008 INDONESIA 048
009 JAPAN 056
010 NORTH KOREA 058
011 SOUTH KOREA 059
012 LAOS 060
013 MONGOLIA 069
014 NEPAL 071
015 NEW ZEALAND 073
016 PAKISTAN 078
017 PHILIPPINES 082
018 THAILAND 097
019 NORTH VIETNAM 110
020 SOUTH VIETNAM 111
021 WEST SAMOA 123
022 SINGAPORE 124
023 MALAYSIA 126
024 MALDIVE ISLANDS 127

AFRICA 23
001 ALGERIA 003
002 BURRUNDI 012
003 CAMEROON 014
004 CEN9 AFRICAN REP9 016
005 CHAD 018
006 CONGO (BRA) 022
007 CONGO (LEO) 023
008 DAHOMEY 028
009 ETHIOPIA 033
010 GABON 036
011 GHANA 039
012 GUINEA 042
013 IVORY COAST 054
014 LIBERIA 062

015 LIBYA 063
016 MALAGASY REP. 065
017 MALI 066
018 MAURITANIA 067
019 MOROCCO 070
020 NIGER 075
021 NIGERIA 076
022 RWANDA 086
023 SENEGAL 088
024 SIERRA LEONE 089
025 SOMALIA 090
026 SOUTH AFRICA 091
027 SUDAN 093
028 TOGO 098
029 TUNISICA 100
030 UGANDA 102
031 U.A.R. 104
032 UPPER VOLTA 107
033 BOTSWANA 114
034 GAMBIA 115
035 LESOTHO 117
036 MALAWI 118
037 TANZANIA 120
038 ZAMBIA 121
039 KENYA 122

WESTERN EUROPE 24
001 AUSTRIA 006
002 BELGIUM 007
003 DENMARK 029
004 FINLAND 034
005 FRANCE 035
006 WEST GERMANY 038
007 GREECE 040
008 ICELAND 046
009 IRELAND 051
010 ITALY 053
011 LUXEMBOURG 064
012 NETHERLANDS 072
013 NORWAY 077
014 PORTUGAL 084
015 SPAIN 092
016 SWEDEN 094
017 SWITZERLAND 095
018 UNITED KINGDOM 105

ALL EUROPE 25
001 ALBANIA 002
002 AUSTRIA 006
003 BELGIUM 007

004 BULGARIA 010
005 CZECHOSLOVAKIA 027
006 DENMARK 029
007 FINLAND 034
008 FRANCE 035
009 EAST GERMANY 037
010 WEST GERMANY 038
011 GREECE 040
012 HUNGARY 045
013 ICELAND 046
014 IRELAND 051
015 ITALY 053
016 LUXEMBOURG 064
017 NETHERLANDS 072
018 NORWAY 077
019 POLAND 083
020 PORTUGAL 084
021 ROMANIA 085
022 SPAIN 092
023 SWEDEN 094
024 SWITZERLAND 095
025 TURKEY 101
026 U.S.S.R. 103
027 UNITED KINGDOM 105
028 YUGOSLAVIA 113
029 MALTA 119

SOVIET BLOC EUROPE 26
001 ALBANIA 002
002 BULGARIA 010
003 CZECHOSLOVAKIA 027
004 EAST GERMANY 037
005 HUNGARY 045
006 POLAND 083
007 ROMANIA 085
008 U.S.S.R. 103
009 YUGOSLAVIA 113

MIDDLE EAST 27
001 CYPRUS 026
002 IRAN 049
003 IRAQ 050
004 ISRAEL 052
005 JORDAN 057
006 LEBANON 061
007 SAUDI ARABIA 087
008 SYRIA 096
009 TURDEY 101
010 U.A.R. 104
011 YEMEN 112

012 DUWAIT 116

AFRO-ASIAN THIRD WORLD 29
001 AFGHANISTAN 001
002 ALGERIA 003
003 BURMA 011
004 BURUNDI 012
005 CAMBODIA 013
006 CAMEROUN 014
007 CEN. AFRICAN REP. 016
008 CEYLON 017
009 CHAD 018
010 CHINA, PR 020
011 CONGO (BRA) 022
012 CONGO (LEO) 023
013 DAHOMEY 028
014 ETHIOPIA 033
015 GABON 036
016 GHANA 039
017 GUINEA 042
018 INDIA 047
019 INDONESIA 048
020 IRAN 049
021 IRAQ 050
022 IVORY COAST 054
023 JORDAN 057
024 NORTH KOREA 058
025 LAOS 060
026 LEBANON 061
027 LIBERIA 062
028 LIBYA 063
029 MALAGASY REP. 065
030 MALI 066
031 MAURITANIA 067
032 MOROCCO 070
033 NEPAL 071
034 NIGER 075
035 NIGERIA 076
036 PAKISTAN 078
037 PHILIPPINES 082
038 RWANDA 086
039 SAUDI ARABIA 087
040 SENEGAL 088
041 SIERRA LEONE 089
042 SOMALIA 090
043 SUDAN 093
044 SYRIA 096
045 THAILAND 097
046 TOGO 098
047 TUNISIA 100

048 UGANDA 102
049 U.A.R. 104
050 UPPER VOLTA 107
051 NORTH VIETNAM 110
052 YEMEN 112
053 BOTSWANA 114
054 GAMBIA 115
055 KUWAIT 116
056 LESOTHO 117
057 MALAWI 118
058 MALTA 119
059 TANZANIA 120
060 ZAMBIA 121
061 KENYA 122
062 WEST SAMOA 123
063 SINGAPORE 124
064 MALAYSIA 126
065 MALDIVE ISLANDS 127

(THE ABOVE CODES ARE:REGIONAL CODES, SUCH AS SEATO 3;COUNTRY CODES, SUCH
AS AUSTRALIA 005 AND THE SEQUENCE CODE WITHIN A GROUP, SUCH AS 001 FOR AUSTRALIA,
THE FIRST COUNTRY LISTED IN SEATO.)